

• **Cascadia Wildlands • Center for Biological Diversity • Greenpeace •**  
• **Greater Southeast Alaska Conservation Community • Tongass Conservation Society •**

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August 16, 2013

**This replaces  
our August 15  
submission.**

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Dear Ms. Pendleton:

### ***Appeal on Big Thorne Project (BTP)***

This is an appeal of the Record of Decision (ROD) and associated Final Environmental Impact Statement (FEIS) and prior NEPA analysis for the Big Thorne Project (“BTP”). The following appeal replaces our August 15 appeal submissions, and is submitted pursuant to 36 C.F.R. § 215 on behalf of Cascadia Wildlands, the Center for Biological Diversity (The Center), Greenpeace, the Greater Southeast Alaska Conservation Community (GSACC) and Tongass Conservation Society (TCS).

Tongass National Forest (TNF) Supervisor Forrest Cole signed the BTP ROD on June 28, 2013. Cole’s decision authorized the removal of 148.9 million board feet (MMBF) of timber from 6,186 old growth acres and 2,299 acres of recovering forests. ROD at 1. The ROD also authorizes the construction 46.1 miles of new road and reconstructs 36.6 miles of existing road. *Id.* The Ketchikan Daily News published the official notice for this project on July 2, 2013. Therefore, the appeal period for this decision ends August 16, 2013 and this appeal, submitted August 15, 2013, is timely. We file this appeal electronically.

Exhibits were sent this afternoon by certified mail in a small box containing contains one DVD disc, and addressed as above to the P.O. box. The cover letter was inadvertently left out, and is provided as another attachment to the e-mail message conveying this appeal. A file list and a photocopy of the disc are appended in that file.

**Appellants:** The appellant organizations have members who use the Tongass National Forest, including the project area, for recreation, commercial fisheries, subsistence, wildlife viewing and other activities.

TCS has a long history of involvement in the land management planning process on the Tongass National Forest. Our membership consists primarily of Alaskans who use the Tongass National Forest and have interests regarding the management of its natural resources. Our organization’s historical base is in Ketchikan. Our members live throughout the Tongass and our membership includes commercial fishermen, Alaska Natives, tourism

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<sup>1</sup> The first address appeared in the notice of decision published in the Ketchikan Daily News on July 2, 2013. The second address was specified on the ROD at 52. We caught this at the very last minute, and are submitting to both addresses.

and recreation business owners, hunters and guides and citizens who use the region and project area for business, recreation, scientific research and subsistence.

GSACC is a rapidly growing regional conservation non-profit organization in Southeast Alaska that was formed in 2011 by a Board with unparalleled experience in regional resource management issues. GSACC seeks to foster protection of southeast Alaska's fish, wildlife and their habitats. Its membership uses public lands throughout southeast Alaska and the project area for commercial fishing, hunting, subsistence, professional scientific work, and a wide range of recreational activities.

Cascadia Wildlands members and staff use and enjoy the Tongass National Forest, Prince of Wales Island and the BTP project area for personal recreation, education, commercial fishing and tourism, photography and other uses. We fear our continuing enjoyment of the area would be adversely impacted by the BTP. Cascadia acts in the interest of conservation of these opportunities for ourselves, for future generations, and for the intrinsic worth we find in a healthy, functioning wildland.

Greenpeace is a non-profit environmental organization and its mission is to raise public awareness of environmental problems and promote changes that are essential to a green and peaceful future. The organization's involvement in forest issues concerning the National Forest System generally and particularly the Tongass National Forest and other forests of southeast Alaska dates back to the early 1990s. Our concerns have included the effects of logging and associated road construction on ecosystems, roadless areas, fish, wildlife and hunting, as well as protection of the last remnants of old-growth forest in the United States.

The Center is a non-profit environmental advocacy organization with more than 300,000 members and online activists dedicated to conservation and recovery of species-at-risk of extinction and their habitats. Center members, activists and staff maintain long-standing interests in clean water and biological diversity on the Tongass National Forest generally and Prince of Wales Island in particular. Its overriding concern with this project pertains to adverse impacts on rare, sensitive and imperiled species that either occupy the project site or would be negatively affected by project activities.

**Relief Requested:** For the reasons stated below, we request that the decision to approve the ROD and FEIS be reversed and that the project be cancelled in its entirety because of multiple failures to comply with the Administrative Procedure Act (APA), National Environmental Policy Act (NEPA), National Forest Management Act (NFMA), Clean Water Act (CWA), Alaska National Interest Lands Conservation Act (ANILCA), Tongass Timber Reform Act (TTRA), Federal Advisory Committee Act (FACA) and various regulations and policies implementing these statutes. Because of the severely degraded condition of existing habitat in the project area, we request that you direct the Forest Supervisor to implement remedial measures in the project area with a focus on failed culvert replacement, extensive road closures, wildlife surveys and small-scale, small gap thinning treatments narrowly tailored to specific wildlife needs prior to any further planning on timber entries in the project area.

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## ***I. Introduction***

In our scoping comments and comments on the DEIS, we requested that the Forest Service cease further planning on the multi-year large timber sale component of the BTP. Instead, Forest Supervisor Cole selected a modified version of Alternative 3 – the most environmentally destructive of all the action alternatives. We reiterate that a project of this temporal and spatial scale reflects neither a reasonable balancing nor an accurate assessment of the environmental and economic impacts. With regard to economic impacts, the Forest Service should have considered alternatives geared toward small-scale local processing combined with binding mitigation projects that remediate serious risks to fish in project area watersheds. Instead, the BTP continues a costly course consuming a substantial public subsidy for the purpose of producing destructive, large-volume old-growth timber sales dependent on highgrading threatened mixed-cedar forest types to satisfy raw log export markets.

In general, Cole's decision reflects an institutional bias that arbitrarily elevated timber industry interests over competing forest resource values. The introductory section discusses our concerns with the purpose and need for this project and range of alternatives. Our major concerns about this project pertain to impacts to wildlife and fish and the beneficial socio-economic benefits of maintain sufficient habitat. In our scoping and DEIS comments, we objected to recent analyses of no-action alternatives in timber project environmental impact statements that disregard the benefits of leaving intact habitats. There is significant concern that past, present and future intensive clearcutting of the project area poses unjustifiable risks to Region 10 sensitive species, subsistence wildlife species such as deer, apex predators and other unique, endemic wildlife species.

Cole's decision adds 38 new stream crossings to severely degraded watersheds and removes extensive wildlife habitat, resulting in a cumulative loss of 85% of goshawk habitat and 70% loss of deer habitat from historical levels in project area Value Comparison Units (VCUs). ROD at 38-39. This project reduces deer habitat capability well below the TNF's own standards and removes the most important winter habitat for migratory deer in the BTP project area, resulting in unjustifiable consequences for deer as well as the declining wolf populations and subsistence hunters who depend on them. The FEIS failed to reasonably assess project effects on watershed conditions and aquatic resources, and failed to describe the significant and persistent harm to affected watersheds and salmon habitats and populations that are likely to result from the BTP. In short, Cole, and the analysis underlying his decision, ignored both the moral issue inherent his decision to flirt with pushing wildlife species to the brink of extinction as well as the greater economic benefit provided by spending the public investment elsewhere and by leaving intact remaining habitat for fisheries, tourism, and subsistence economies.

Some of our concerns with the ROD and FEIS flow from the Tongass Land Management Plan (TLMP) as amended in 2008. This FEIS and its planning documents rely on, tier to and reference the TLMP. Implementation of the amended TLMP through this and other timber projects has often resulted in a disproportionate distribution of large volume, export-driven timber sales that remove high value habitat for important fish and wildlife populations. Greenpeace, CWP, the Center, TCS and other organizations appealed the TLMP to the Chief of the Forest Service and requested specific and major changes with particular emphasis on

wildlife populations affected by this particular project. This appeal relies on, tiers to and incorporates by references those appeals.<sup>2</sup>

Our appeal begins with this introductory section by discussing our concerns with the purpose and need, selection of alternatives, the omission of critical NEPA analyses for significant issues and long-standing problems with the public process for this project. Section II discusses timber economics and explains that the FEIS failed to account for the massive taxpayer subsidy for this project and failed to assess the economic and socio-economic impacts of the project. That section concludes by describing the sad result of the numerous flawed and misleading economic assumptions – the decision to proceed with a clearcut intensive project in the midst of an already heavily modified landscape.

**A. The Purpose and Need for the BTP was Unreasonably Narrow and Restricted to the Objectives of Private Entities, Based on a Flawed Market Demand Analysis and a Misleading Assessment of an “Underlying Need”**

Congress enacted NFMA in part to respond to “widespread public distress and scientific concern over the Forest Service’s post-World War II shift to massive, heavily subsidized timber production in the National Forests.” *Sierra Club v. Peterson*, 185 F.3d 349, 353-54 (5<sup>th</sup> Cir. 1999)(superseded on other grounds, 228 F.3d 559 (5<sup>th</sup> Cir. 2000)). The goal was to ensure that timber production would not be the “sole objective” of the Forest Service and to direct forest managers to protect other resources such as fish and wildlife habitats. S. Rep. 94-893, reprinted in 1976 U.S.C.C.A.N. 6662, 6671. Unfortunately, the purpose and need statement for the BTP reflects an ongoing objective that favors a costly timber sale program in order to supply a single timber purchaser, Viking Lumber Company (“VLC”).

The range of alternatives considered in an EIS depends on the purpose of the project. *Methow Valley Citizens Council v. Regional Forester*, 833 F.2d 810, 815-816 (9<sup>th</sup> Cir. 1987). The purpose definition must be reasonable so that the purpose statement does not preclude consideration of reasonable alternatives. *City of Carmel-by-the-Sea v. U.S. Dept. of Transportation*, 123 F.3d 1142, 1155 (9<sup>th</sup> Cir. 1997); see also *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 195-96 (D.C. Cir. 1991). The purpose and need statement selected one goal and three timber objectives that relate almost exclusively to the VLC’s timber supply interests from a 232,000 acre project area. FEIS S-1, 1-4, 5.<sup>3</sup> The emphasis on high volume alternatives in many ways subverted the local and regional economy goals and objectives of providing for diverse resource uses and employment in other economic sectors dependent on forest resources for ecosystem services. FEIS at 1-5. As discussed in subsequent sections, because of the high level of raw log export from large timber sales, the FEIS’s “economic timber” perspective also reduces forest life-cycle local employment values and unreasonably narrows project alternatives.

Our scoping and DEIS comments requested that you redefine the purpose of this project by revisiting the narrow focus on timber industry development. Public comment, including expert scientists and individuals from diverse economic sectors, expressed overwhelming

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<sup>2</sup> Specifically, we incorporate Appeals No. 08-13-0019; - 0023; -0025, -0026; -0027; - 0028; and - 0029. All of these filings, with their attachments, have been provided to Region 10 in the course of the 2008 TLMP amendment appeal proceedings and are readily available to the Appeal Deciding Officer on the TNF website. We can furnish the materials again, if needed.

<sup>3</sup> The FEIS asserts that the BTP would also contribute to a timber supply for small operators but fails to explain why that supply is not or could not be made available through other means such as small sales projects and state sales; see e.g. Appx. D at D-19-20; FEIS at 3-5 – 3-7.



opposition to further development of the BTP. PR 2241 (individual comments opposed the project at a ratio of 10:1). But the ROD and FEIS ignored the scientific and public input and instead proceeded with a narrow purpose and need statement and range of alternatives.

**1. The Timber Purposes Were Unreasonably Narrow and Violated NEPA by Constricting the Project Purpose to the Needs of Private Entities**

The economic timber goals and objectives were unreasonably narrow because they respond solely to the VLC's timber operational objectives rather than to the Forest Service's multiple use management responsibilities. *See, e.g. National Parks Conservation Ass'n v. Bureau of Land Management*, 606 F.3d 1058, 1070 (9<sup>th</sup> Cir. 2010)(*cert. denied*, March 28, 2011). The Forest Service cannot allow the perceived needs of private entities to narrowly define the scope of a proposed project. *Id.* (citing *Citizens Against Burlington, Inc.* 938 F.2d at 196). Instead, the purpose of a project must look to other relevant factors, including the views of Congress as expressed in the agency's statutory authority and other congressional objectives. *Citizens Against Burlington, Inc.* 938 F.2d at 196.

In enacting NFMA, Congress explicitly indicated that timber production was not to be a sole objective of management planning. S. Rep. 94-893, *reprinted in* 1976 U.S.C.C.A.N. 6662, 6671. NFMA thus requires that forest plans provide for multiple uses, including recreation, watersheds, wildlife and fish. 16 U.S.C. § 1604(e). Similarly, in enacting ANILCA, Congress intended to "provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so. 16 U.S.C. § 3101(c). Further, with reference to the BTP's significant impacts on wolves, goshawks, flying squirrels and other at-risk endemic mammals, Congress has noted that depleted wildlife species "are of esthetic, ecological, educational, recreational and scientific value to the Nation and its people." 16 U.S.C. § 1531(a)(3). Finally, the TTRA's concern with timber monopolies bears directly on the purpose and need to implement a multi-year commitment. GAO. 1995.

The "economic timber" objective for this project means timber supply for VLC and was the sole driver of action alternatives that consisted primarily of large scale, clearcut intensive, raw-log export driven sales. The FEIS does not provide any sales data to show that smaller mills have the capacity to bid on or utilize in excess of a hundred million board feet of timber. Instead, the list of POW timber sale purchasers shows that VLC is the only likely purchaser for the large sale component. PR 2205. For more than half a decade, or longer, the TNF's "number 1 priority" has been to make timber available to VLC and the agency has "spent a significant amount of time" seeking to meet this priority. Exh. 231.

This purpose ignored the Forest Service's multiple-use mandate under NFMA and is contrary to the Congressional policy purposes enunciated in ANILCA and the TTRA. The TNF timber sale program can acknowledge the goals and objectives of private entities, but cannot allow those entities to define the scope of the proposed project. *National Parks Conservation Ass'n*, 606 F.3d at 1070. But that is precisely what happened here and as a result, the purpose of this project was unreasonably narrow, in violation of NEPA.

**2. The ROD and FEIS Violated NFMA and NEPA by Developing a Non-competitive Timber Project and Misleading the Public in the Response to Comments**

The TNF's unlawful emphasis on meeting VLC's objectives also violates TLMP and national direction which requires that timber managers provide for fair competition when designing timber sales. Our DEIS comments requested that further NEPA analysis compare the competitive bidding from the small and micro-sales programs, identify the number of regional sawmills are capable of successfully bidding and operating on sales ranging from

micro-sales to large timber sales and assess the disparity of bid values between larger and smaller mills on POW. Bid values are relevant to this project because they demonstrate that the small sale component generates competitive bidding and better reflects the market values for locally processed cedar than the export-based appraisal system.

The large sale component does not meet the TLMP directive to “plan offerings to encourage competitive bidding.” [2008 TLMP at 4-74]. It is also inconsistent with Forest Service policy regarding competitive bidding which requires the Regional Supervisor and Regional Forester to monitor bidding practices, and identify “less than normal competition” and “non-competitive bidding patterns.” FSM 2432.04.

The FEIS failed to respond appropriately to the comments by reviewing and summarizing relevant data. Instead, the FEIS stated that “[t]here are multiple timber sale purchasers in southeast Alaska capable of successfully bidding and operating on ... larger timber sales” and that “[a]ll timber sales are planned to be offered for competitive bid.” FEIS, Appx. B at B-105 – 106. The FEIS lists Alcan as a possible bidder but the record materials do not show that Alcan has ever submitted a competitive bid on a POW timber sale or, as the FEIS suggests, sold logs from other projects to a local processor. *Id.* In fact, there is little, if any, competitive bidding done for large sales and five sales over the past decade for VLC on POW received but one bid. Mehrkens, J. 2007.

The indicated bid value of \$23.77/mbf for the ROD further suggests a non-competitive bidding scenario. ROD at 3-36. Between 2003 and 2007 small mill operators paid nearly five times as much per MBF as Viking Lumber. Mehrkens, J. 2007. The large sale program for Viking generated average bids of \$11.55/MBF while the microsales, small sales and salvage sales generated an average bid of \$64.75/MBF. The FEIS conceded that smaller volume timber sales generate higher bids but then failed to provide enough information to inform public review of recent and comparative bid values. NEPA required the Forest Service to assess, at a minimum, that it could generate more value, and overall local economic activity, by providing smaller volumes to smaller processors over an extended period of time rather than liquidating its inventory now. Thus, by maintaining a non-competitive timber sale program, and by failing to evaluate the consequences of the non-competitive program, the ROD and FEIS violated NFMA and NEPA.

### **3. The Purpose and Need Tiers to An Invalid Market Demand Analysis**

A second problem with the economic timber goals and objectives is programmatic and pertains to the TLMP/TTRA objective of meeting “market demand.” As explained in Section II.C., *infra*, the TLMP and its site-specific timber project analyses rely on a methodology and series of market demand scenarios that overestimate actual demand. The methodology and scenarios persistently predict industry growth and expansion when actual events show prolonged and persistent decline. As a result, the TLMP grossly overestimates the purported need for additional timber sales. it was unreasonable to create site-specific goals and objectives that reflect those hypothetical and inflated market demand estimates. In essence, the TLMP prioritized timber development “over the competing environmental and recreational goals without justification sufficient to support the agency’s balancing of these goals.” *Natural Resources Defense Council v. U.S. Forest Service*, 421 F.3d 797, 808 (9<sup>th</sup> Cir. 2005).

In our TLMP appeal and in other appeals incorporated herein by reference, we explained why the materials provided in the 2008 TLMP amendment failed to correct the calculations of market and planning cycle demand as directed by the 9<sup>th</sup> Circuit in 2005. As explained in Section II.C., the TNF has yet to produce a reasonably accurate means of estimating timber

demand and consequently the perceived need for large timber sales. In sum, the TLMP's economic analyses are fundamentally flawed, and those flaws unreasonably narrowed the purpose and need statement for this project which explicitly relies on TLMP market demand projections. FEIS at 1-4.

#### **4. The Exclusion of Protective and Rehabilitative Goals Demonstrates the Unreasonably Narrow Timber-centric Focus for this Project**

Further, the purpose statements were overly narrow in that they improperly excluded objectives that would address existing habitat degradation in the project area and thus arbitrarily limited the range of reasonable alternatives. In light of the severe watershed and wildlife habitat damage in the project area, the stated purpose should have incorporated one of the numerous protective or rehabilitative purposes listed in USDA Strategic Plans. For example, Objective 2.3 of the FY 2010 – 2015 Strategic Plan directs USDA departments to protect water quality. Performance measurements entail increasing the amount of watershed acreage in near natural condition. This could include structural investments necessary to fix failed culverts or decommission roads. *See also* 2008 TLMP at 4-11. This objective would respond to the numerous public and expert agency comments that have repeatedly emphasized the need to address the backlog of road maintenance and blocked culverts as part of this project. The significant additional habitat loss is also inconsistent with other Forest Service goals and objectives which seek to conserve national forests and make them more resilient to climate change. The ROD and FEIS instead opted to proceed with but one purpose from the Strategic Plans to the exclusion of other purposes that more accurately reflect multiple uses of the project area.

#### **5. The Statement of Underlying Need Was Unreasonable**

Also, the few paragraphs describing the "Need" for this project are flawed. The FEIS describes and "underlying need for a reliable, economic and long term timber supply" and asserts that there has been a "significant decline" in manufacturing and natural resource employment, "mirrored by a decline in sawmill industry production and harvest levels." FEIS at 1-5. As explained in Section II.B, the decline in manufacturing is a result of past highgrading during the pulp mill era and the present transfer of skilled labor jobs to foreign countries as a result of Region 10's export policy. And as shown in Section II.B., Figure 4, there has not been a decline in natural resource employment. Rather, regional resource employment has instead shifted to small and mid-sized recreation and fishing businesses.

#### **6. Conclusion: The Unreasonably Narrow Purpose and Need Violated NEPA by Limiting the Range of Alternatives to VLC's Objectives for a Long-Term Supply of Timber for Raw Log Export Markets**

In sum, the FEIS and DEIS defined the project purpose and objectives so narrowly that they precluded consideration of reasonable alternatives and/or environmentally benign alternatives. [*City of Carmel –by-the-Sea*, 123 F.3d at 1155, *Citizens Against Burlington, Inc.*, 938 F.2d at 195-96]. The flawed 2008 TLMP amendment market demand estimates and emphasis on a timber supply for a single private entity misdirected the project's purpose into having a disproportionate emphasis on clearcut logging for foreign and out of state mills - without due consideration for other Congressionally established forest management objectives. The problems with the purpose/goals/objectives for this project are programmatic and project-specific and undermined NFMA's purpose of neutralizing the bias toward timber production on public lands. Essentially, the TNF unlawfully crafted a "narrow purpose and need statement that excludes alternatives that fail to meet specific private objectives." *Citizens Against Burlington, Inc.*, 938 F.2d at 195-96. We request that you rescind the

DEIS, FEIS and ROD and direct the TNF to reinitiate scoping and develop a revised purpose and need statement prior to any further timber sale planning in the project area.

### ***B. The Range of Alternatives Was Inadequate***

The alternatives are the heart of a NEPA document and one of the Forest Service's most important obligations under NEPA. 40 C.F.R. § 1502.14; *NRDC*, 421 F.3d at 813. Because of the environmental damage and the significant taxpayer loss associated with road construction, our scoping and DEIS comments requested that the Forest Service consider multiple significantly downscaled action alternatives that eliminated new road construction. But the DEIS and FEIS fell short of the NEPA obligation to "[r]igorously explore and objectively evaluate all reasonable alternatives." [40 C.F.R. § 1502.14(a)]. "The existence of a viable but unexamined alternative renders an environmental impact statement inadequate." *Westlands Water Dist.*, 376 F.3d at 868. All of the action alternatives entailed intensive, long-term clearcut prescriptions in sensitive and recently harvested portions of the project area. These alternatives thus fail to address other legal obligations to protect clean water, to maintain habitat for sensitive and subsistence species and to manage forest for multiple uses. The range of alternatives did not conform to NEPA's requirements because it was unreasonably limited to long-term plans for intensive clearcutting and failed to foster informed decisionmaking and public participation. *Id.*, 376 F.3d at 868, 872.

The IDT selected four significant issues used to formulate and design alternatives: (1) Timber Supply and Economics; (2) Old Growth Habitat; (3) Wildlife Habitat and (4) Cumulative Watershed Effects. [FEIS at 1-12 – 1-14]. The proposed action purported to balance timber supply with wildlife habitat and watershed issues but would have clearcut roughly 4,000 acres of old-growth forest, constructed 32 miles of new logging roads and added numerous new stream crossings to the numerous failed culverts in the project area. [FEIS at 2-7]. Overall, the four action alternatives would take between 85 and 176 MMBF of timber from the most heavily logged forest habitat in southeast Alaska. [FEIS at 2-6 – 2-12].

It was thus unreasonable to characterize any of the alternatives as being responsive to wildlife or fisheries concerns. This means that the TNF improperly excluded numerous reasonable alternatives that range from down-scaled timber extraction levels to alternatives that provide a binding mitigation plan for the serious watershed damage already present in the project area. Our other specific concerns follow.

#### ***1. The Range of Alternatives Tiers to an Illegal and Arbitrary Forest Plan***

The stated objectives for this project rely on guidance from the 2008 TLMP amendment. As a result, the range of alternatives was unreasonably restricted by the objective of meeting an overinflated market demand scenario pursuant to the 2008 TLMP amendment. Because of the significant disparity in timber values and infrastructure across the Tongass, the TNF has concentrated timber harvest in just a few areas. These issues have been fully addressed by the administrative appeals filed by TCS, Greenpeace, CBD, Cascadia and others and we will reiterate these problems in our discussion of Appendix A in Part II.C. We simply point out that this particular project is an unfortunate result of the deficient Forest Plan analysis and flawed multiple-use balancing. All of the action alternatives include large-scale clearcuts and authorize extensive road construction.

#### ***2. The Failure to Consider Alternatives and to Select Alternatives that Conform to the Notice of Intent Violates NEPA***

In our scoping and DEIS comments, we indicated that the scoping notice did not adequately address the range of timber volumes proposed for removal. A scoping notice

must describe the proposed action and possible alternatives. 40 C.F.R. § 1508.22(a). NEPA further requires that “[d]raft environmental impact statements shall be prepared in accordance with the scope decided upon in the scoping process.” 40 C.F.R. § 1502.9.

According to the February 9, 2011 scoping letter, preliminary analysis indicated that the BTP would take 100 MMBF from 5,800 acres in the project area using clearcut and partial cut prescriptions. However, the modified selected alternative, Alternative 3, will extract 148.9 MMBF of timber, clearcut 3,763 acres of old-growth forest and partially clearcut another 2,424 acres. ROD at 4. Alternatives 2 and 5 also proposed to extract more than 100 million board feet. FEIS at 2-7, 2-12. The TNF and Tetra Tech initially planned for a 200 MMBF project but then failed to provide this information in the scoping notice. DEIS PR 0020 at 2, 5. The addition of 50 MMBF – a massive timber sale in itself - is well outside the range of alternatives suggested in the scoping notice. We thus request that you direct the TNF to reinstate the scoping process in order to meet NEPA’s obligation to describe the proposed action and possible alternatives and to ensure that NEPA analysis conforms to decisions made during the scoping process.

### ***3. The Range of Alternatives Included Too Many Large Volume Alternatives and Improperly Excluded Lower Volume Alternatives***

The DEIS and FEIS did not consider an adequate range of reasonable lower volume alternatives. 40 C.F.R. § 1502.14. Our scoping and DEIS comments requested a broader and more carefully crafted purpose statement that would encourage the development of reasonable, smaller volume alternatives that avoid new road construction and consist solely of small and micro-sales. The development of a small and/or microsales alternatives and lower volume alternatives were essential to fulfilling NEPA’s mandate to facilitate “informed decisionmaking and informed public participation.” *Westlands Water Dist.*, 376 F.3d at 872. A small or micro-sale alternative would have done by far the best job of “sharply defining the issues and providing a clear basis for choice among options.” 40 C.F.R. § 1502.14.

It was important to objectively evaluate how a small sales alternative would best meet the economic timber perspective and support diverse natural resource employment opportunities by minimizing impacts on other resources. Small or micro-sales alternatives best address the non-timber issues deemed significant, such as watershed effects and wildlife habitat. Further, small sale alternatives would be economically efficient because they do not require costly road construction or helicopter harvests using high-risk partial cutting prescriptions. Any added administrative cost incurred per MBF in small sales administration is more than offset by the savings down the road in costly habitat amelioration programs to address some of the mess left as a result of large clearcuts.

But the BTP’s range of alternatives was unreasonably restricted to massive, long-term timber projects and failed to even consider smaller volume alternatives for VLC. Cf. FSM § 2430.3 (“give a preference to relatively small, short-term sales to reduce the risk produced by a severe change in market conditions and to reduce opportunities for speculation”). Three of the action alternatives take more than a 100 MMBF from north-central POW, where timber operators have already extracted nearly half of the old growth and nearly 60% of the high value old growth in less than half a century. FEIS at 2-23. Action alternatives would result in the cumulative loss of as much as 73% of winter deer and winter marten habitat capability in some WAAs and a cumulative loss of as much as 85% of goshawk habitat in some VCUs. FEIS at 2-24. Road densities and watershed harvests already exceed threshold levels for fish and wildlife. FEIS at 2-24-25. The only alternative of less than 100 MMBF – Alternative 4 – was still too large in light of current conditions and in any event, appraised deficit because it

consisted mostly of partial cut helicopter logging and thus would never have been seriously considered by the Forest Supervisor.

#### **4. Conclusion**

For all of the above reasons, we request that you remand the range of alternatives to the Forest Supervisor with instructions to cancel the project or reinitiate scoping and uncouple small sales from large sales in developing alternatives, and reduce the volume available to VLC for all alternatives. All of the action alternatives were patently unreasonable in light of current habitat conditions.

#### ***C. NEPA Failures: The FEIS Unreasonably Ignored the Massive Volume, Long-Term Duration of This Project and Particularly Failed to Analyze the Direct, Indirect and Cumulative Effects of the Sealaska Legislation and Climate Change***

The DEIS and FEIS were inadequate given the significant impacts of a long-term commitment to large-scale timber harvest. NEPA requires a “hard look” at the environmental consequences of a proposed action before implementing environmentally harmful actions, *National Parks and Conservation Association*, 241 F.3d at 733, and the DEIS and FEIS failed to meet this standard. The NEPA analysis, though lengthy, was more encyclopedic than analytical and failed to provide the “detailed statement” that NEPA requires federal agencies to produce so that environmental impacts receive consideration “to the fullest extent possible.” 42 U.S.C. § 4332(2)(C). The information provided was not high quality and failed to include all pertinent information that was or should have been part of the decisionmaking process. 40 C.F.R. § 1500.1(b). Conclusory statements need to have some basis in scientific or objective data but both the FEIS and DEIS primarily consisted of general statements about “possible” effects and some risk that do not constitute a “hard look.” *Neighbors of Cuddy Mountain*, 137 F.3d at 1380.

Indeed, even TNF staff were disappointed with the performance of the NEPA contractor. See PR 2259 (“[Tetra Tech] did not do logical, scientific analysis” for the resource reports; failed to disclose eagle nests in unit card maps and gave the TNF “bad data” and “incomplete information, many, many times”). The analytical deficiencies are numerous and include a failure to fully consider species-specific habitat specializations, a failure to conduct adequate wildlife surveys and a refusal to obtain watershed baseline data necessary to monitor and mitigate impacts over the extended duration of this project. The TNF also ignored relevant data showing that the administrative cost for this project is at least ten times as high as projected. And in general, the FEIS instead measured impacts to fish and wildlife in an encyclopedic manner through reference to cumulative harvests and remaining POG without any site-specific analysis of project impacts to critical habitat features. Substantive sections in this appeal address specific failures to take a hard look at economic, wildlife and watershed impacts. However, the following subsections address significant NEPA violations with respect to the duration and intensity of this project, and the striking omission of any NEPA analysis with respect to the Sealaska legislation and climate change.

#### ***1. The FEIS Violated NEPA by Failing to Consider the Economic and Environmental Impacts of a Long-term, High Volume Timber Monopoly in the Project Area***

The NEPA analysis in the FEIS failed to take a hard look – or any look at all - at the economic and environmental impacts of large, long-term timber sales despite explicit Congressional policy guidance designed to address timber monopolies and risks to forest resources. During the 1980s, Congress became concerned about the adverse impacts of long-term commitments of TNF timber. GAO. 1995 at 10. Congress had two concerns. First, there were perceived competitive advantages and monopoly concerns. *Id.* Second, long-term

timber commitments implicated heightened concerns about overall forest management and the ability to respond and adapt to threats to other forest resources such as fish and wildlife. *Id.* Consequently, the TTRA stated that “it is in the national interest ... to assure that valuable public resources in the Tongass National Forest are protected and wisely managed” and that modifying long-term commitments would “enhance the balanced use of resources on the forest and promote fair competition within the southeast Alaska timber industry.” TTRA § 301. These statements articulated a policy goal of reducing the scale and duration of TNF timber projects to ensure balanced consideration of other multiple uses of public forests for purposes of protecting fish and wildlife, hunting, recreation, commercial fishing and subsistence. In essence, the TTRA recognized the need for Congressional intervention to reinforce NFMA’s multiple use mandate in southeast Alaska. But the FEIS arbitrarily failed to explain how the decision to implement this project is consistent with the multiple use and fair competition policy goals established in the TTRA and the NFMA.

First, VLC has essentially replaced the pulp mills as the monopolist of the TNF’s timber sale program. Its large scale clearcuts pose the same threats to the ecological integrity of public forests in the southern and central portions of the Alexander Archipelago that the pulp mills once posed to the entire national forest. The DEIS and FEIS should have demonstrated that the TNF considered congressional policy objectives regarding timber monopolies. GAO. 1995. But the NEPA analysis entirely failed to analyze whether the volume and duration of this project provide VLC with a competitive advantage versus small sale purchasers or to disclose the substantial differences in bid values between the small sale program and sales purchased by VLC. It also failed to address the extent to which this project will liquidate the TNF’s inventory of marketable cedar for export as raw logs, thus foreclosing future opportunities for local mills to produce value-added products. In sum, the NEPA analysis arbitrarily failed to consider critical factors relevant to the decision to proceed with this project - the respective competitive advantages conferred upon a single company.

Second, with regard to environmental concerns, the Forest Service has previously recognized that this type of long-term timber commitment would undermine its authority to manage public forest resources, to adapt to changing environmental information, provide special benefits to a private corporation and conflict with the NFMA and TTRA. Joint Hearing on H.R. 3659. 1996. The decision to implement a long-term commitment is also not consistent with multiple use mandates. In enacting NFMA, Congress explicitly indicated that timber production was not to be a sole objective of management planning. [S. Rep. 94-893]. Rather, Congress enacted NFMA in part to respond to “widespread public distress and scientific concern over the Forest Service’s post World War II shift to massive, heavily subsidized timber production in the National Forests.” [*Sierra Club v. Peterson*, 185 F.3d at 353-54] The goal was to ensure that timber production would not be the “sole objective” of the Forest and to direct land managers to protect other forest resources such as fish and wildlife habitats. [S. Rep. 94-893]. NFMA thus requires that forest plans provide for multiple uses, including recreation, watersheds, wildlife and fish. 16 U.S.C. § 1604(e). Similarly, in enacting ANILCA, Congress intended to “provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so.” [16 U.S.C. § 3101(c)].

The long-term commitment to intensive clearcutting in this project area in particular substantially weakens the Forest Service’s ability to conserve huntable populations of wildlife and poses high risks to fish populations due to pre-existing conditions and cumulative effects associated with the BTP. Long-term habitat degradation exacerbates the risks associated with the short term timber projects:

Should freshwater habitats be degraded for long periods, salmon and steelhead stocks will eventually be confronted simultaneously with low marine productivity and degraded freshwater habitat. The likely result of

such double jeopardy could be high, long-term risk of extinction. The overall risk to Southeast Alaska's fisheries and the people who depend on them is determined in part by the total number of watersheds degraded. [AFHA Report, Synthesis Report at 4].

The NEPA analysis also arbitrarily failed to discuss the relationship between a long term timber commitment and U.S. Fish and Wildlife Service listing decisions and court rulings on wolf and goshawk. In sum, the FEIS violated NEPA because it failed to address the relationship between the heightened risks to fish and wildlife associated with long-term, high volume timber sales and Congressional multiple use objectives reflected in NMFA, TTRA and ANILCA.

## **2. The FEIS and ROD Violated NEPA and the APA By Failing to Analyze or Consider the Implications of the Sealaska Legislation**

The cumulative effects analysis failed to adequately assess the cumulative effects of timber extraction associated with the Sealaska Corporation's land selections on wildlife, watersheds and regional economies. FEIS at 3-10. The pending legislation will dramatically increase the amount of unbuffered streams in adjoining POW VCUs, will have significant impacts on subsistence and at-risk species and could greatly reduce the viability of POW's smaller mills. TNF staff initially identified Sealaska scenarios as a "resource concern" and indicated that private lands research was in the NEPA contract under the line item budget for "foreseeable actions." PR 2259 at 2. The Lands and Wild and Scenic Rivers Resource Report states that "[w]hile the Sealaska land legislation could be considered reasonably foreseeable by some ... the effects of harvesting timber on identified lands was not included in any cumulative effects analysis." PR 2230 at 16 (adding that the legislation would have "overall implications" for public land management, POW and the Forest Plan in general). The FEIS indicates that "[n]onetheless" there was a cumulative effects scenario considered with respect to deer. FEIS at 3-11.

NEPA requires that the Forest Service analyze impacts from the BTP and other "past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions." 40 C.F.R. § 1508.7. This means an EIS must fully examine other actions that could have a "cumulative or synergistic environmental effect." *Tenakee Springs v. Clough*, 915 F.2d 1308, 1312 (9<sup>th</sup> Cir. 1990). A reasonably foreseeable action, "as applied to a type of environmental impact, [is] properly interpreted as meaning that the impact is sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision." *Sierra Club v. Marsh*, 976 F.2d 763, 767 (1<sup>st</sup> Cir. 1992). This requirement is necessary to ensure that the decisionmaker can evaluate whether the project should be altered to lessen cumulative impacts. *NRDC v. U.S. Forest Service*, 421 F.3d 797, 814 (9<sup>th</sup> Cir. 2005)(citing *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 809 (9<sup>th</sup> Cir. 1999).

Sealaska's legislation is reasonably foreseeable. The Forest Service has been involved in months of negotiations, Exh. 232, on the legislation and its efforts helped to ensure that the bill will move to the full Senate floor after being unanimously passed through the Senate's Energy and Natural Resources Committee. Regional Forester Pendleton, Cole and other Alaska Region personnel have all been encouraged by the highest ranking USDA officials "to get the right group together to say good things about any compromise in the Senate." Exh. 234. The media reports that support from the Forest Service and SEACC has helped to put Sealaska "within reaching distance" of finalizing its claims. Exh. 233. In light the bill's progress in 2013, and TNF's involvement in helping to move the legislation through the Senate, it was unreasonable for the TNF to exclude the cumulative effects of the bill from the analysis, and even more unreasonable to refuse to alter the project to lessen those impacts.



### **3. The FEIS and ROD Violated NEPA and the APA by Failing to Evaluate Project Impacts to Climate Change and Climate Change Impacts to Forest Resources and Ecosystem Services**

In our scoping and DEIS comments, we requested that further NEPA analysis evaluate this project in terms of how logging impacts climate change. We also requested that the analysis consider and disclose threats posed by climate change to project area forest resources. Every section of the FEIS, including timber economics, should have considered the impacts of our changing climate. Our DEIS comments pointed out numerous scientifically credible views pertaining to climate change impacts on southeast Alaska's public forests and requested that project prescriptions add an extra factor of caution due to the projected changes which indicate substantial increased risks to fish and wildlife populations. We described and submitted numerous post-TLMP scientific papers that consider climate change with specific reference to Alaska forest ecosystems and southeast Alaska's freshwater salmon ecosystems and other temperate coastal rainforests.

But the FEIS arbitrarily stated that information on climate change "was deemed not essential to a reasoned choice among alternatives" despite planning record materials which identified southeast Alaska's coastal temperate rainforest as having global significance in terms of carbon flux and identified numerous climate change related threats to southeast Alaska's forest resources. FEIS at 3-334; PR at 1904; 1913, 2135. The explanation in the FEIS was that "the effects of land management activities on climate change ... are uncertain, unquantifiable, and likely to be small, (especially compared to other routine human activities)." *Id.* The discussion primarily tiered to the outdated and flawed 2008 TLMP's conclusion that climate change effects on the Tongass are uncertain. *Id.* at 3-333.

The FEIS thus neglected to consider significant direct, indirect and cumulative effects to and from climate change. It is widely recognized that old-growth logging in particular and also second-growth logging contribute to global carbon emissions and that climate change has significant ramifications for forests and biodiversity. Both the U.S. Supreme Court and Ninth Circuit have recognized that climate change is "an issue of national importance." *Massachusetts v. EPA*, 549 U.S. 497, 521 (2007); *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin. ("NHTSA")*, 538 F.3d 1172, 1221-24 (9th Cir. 2008). Despite the TNF's characterization of climate change effects as "uncertain" the courts have found that the evidence "shows that global warming will have an effect on public health and safety." *NHSTA*; see also *Mass. v. EPA*, 549 U.S. 497 (2007) (describing evidence demonstrating that "[t]he harms associated with climate change are serious and well recognized").

Thus, the TNF's approach to climate change in the BTP FEIS violated NEPA in numerous ways by failing to take a "hard look" at carbon storage and climate change impacts on ecosystem services. See 40 C.F.R. §§ 1500.1 (NEPA analyses must provide high quality environmental information); 1502.20 (the FEIS improperly tiered to a flawed programmatic document); 1502.22 (the FEIS failed to state the relevance of climate change to reasonable foreseeable significant adverse impacts and failing to summarize existing, relevant, credible scientific evidence), 1502.24 (the FEIS failed to insure the professional and scientific integrity of the discussions and analyses). The TNF's excuses failed to consider important aspects of climate change as they pertain to project area resources, provided explanations that were contrary to the evidence before the agency, and were "so implausible that [the excuses] could not be ascribed to a difference in view or be the product of agency expertise." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). We addressed the flaws of the TNF's climate change approach in considerable detail in our administrative appeal of the TLMP, and included many concerns specific to POW and the project area. We

incorporate the relevant sections of that appeal by reference, and add the following discussion.

***a. Project Impacts on Climate Change: The FEIS Violated NEPA by Failing to Analyze Forest Carbon Cycling, Carbon Storage and by Analyzing TNF Contributions at an Arbitrary Global Scale***

The BTP may significantly impact the environment with substantial greenhouse gas emissions as well as direct, indirect and cumulative effects on forest carbon stores and sequestration rates. NEPA requires agencies to consider the effects, including the cumulative effects, such as any action that has “individually insignificant but cumulatively significant impacts.” 40 C.F.R. § 1508.27(b)(7). “Cumulative impact” is defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency . . . or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” *Id.* § 1508.7. An EIS is “deficient if it fails to include a cumulative impact analysis.” *NHTSA* 538 F.3d at 1215; *also see Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 895 (9<sup>th</sup> Cir. 2002).

In *NHTSA*, the Ninth Circuit concluded that the “impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct.” 538 F.3d at 1217. There is no scientific question that incremental increases in greenhouse gases can have a cumulatively “significant” effect on climate change. *NHTSA*, 538 F.3d at 1222. Further, “the fact that climate change is largely a global phenomenon that includes actions that are outside of [the agency’s] control . . . does not release the agency from the duty of assessing the effects of its actions on global warming within the context of other actions that also affect global warming.” *Id.* (internal citations omitted); *see also id.* (“[w]e cannot afford to ignore even modest contributions to global warming. If global warming is the result of the cumulative contributions of myriad sources, any one modest in itself, is there not a danger of losing the forest by closing our eyes to the felling of the individual trees?”) (citing *City of Los Angeles v. NHTSA*, 912 F.2d 478, 501 (D.C. Cir. 1990) (Wald, C.J. dissenting); *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016, 1032 (9<sup>th</sup> Cir. 2006) (“No provision of NEPA . . . allows [agencies] to eliminate a possible environmental consequence from analysis by labeling the risk as ‘unquantifiable’”). NEPA thus clearly required the BTP FEIS to consider the cumulative impact of project effects on climate change.<sup>4</sup>

NEPA further imposes a duty on federal agencies to gather information and do independent research when missing information is “important,” “significant,” or “essential” to a reasoned choice among alternatives. *Oregon Environmental Council v. Kunzman*, 817 F.2d 484, 495 (9<sup>th</sup> Cir. 1987) (citing *Save our Ecosystems v. Clark*, 747 F.2d 1240, 1244 n. 5, 1248-49 (9<sup>th</sup> Cir. 1984)). *NTHSB* requires that an EIS provide information about direct and indirect forest management effects to carbon storage and sequestration, as well as their incremental and cumulative effects and mandates rigorous information gathering and/or research in order to adequately consider and disclose the significance of environmental

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<sup>4</sup> The TNF relied on its 2009 Washington Office guidance (P.R. 1919), which concludes that “[b]ecause the context of individual projects and their effects cannot be meaningfully evaluated globally to inform individual project decisions, *it is not possible* and it is not expected *that climate change effects can be found to be ‘significant’ under NEPA* and, therefore, require EIS preparation.” This sweeping conclusion fails to relieve the agency of ever considering whether a project’s cumulative effects on climate change are “significant” under NEPA because it contravenes the Ninth Circuit’s command to render such consideration in *NHTSA* and NEPA itself.

effects that may result from the BTP. But the BTP ROD and FEIS arbitrarily failed to consider impacts to carbon storage and sequestration that may result from the BTP by deeming them irrelevant to the decision. Instead, the TNF's analysis deferred to the 2008 TLMP FEIS and arbitrarily minimized project impacts by comparing Tongass carbon storage capacity with global forest carbon storage. See FEIS at 3-333 to 3-335. The FEIS explained that "because of the uncertainty about how activities on the Forest affect climate change and the predicted small magnitude of these effects, the best course of action is continued management of the Tongass for resiliency in ecosystem functions." BTP FEIS at 3-333.

Most importantly, the discussion in the FEIS provides a very misleading discussion of the significance of carbon sequestration and cycling. The FEIS concludes that "changes in carbon sequestration under any of the action alternatives, whether positive or negative, would not be a relevant factor for choosing among alternatives." FEIS at 3-336. This conclusion failed to consider the overwhelmingly immediate negative impacts of carbon losses from logging and road construction, relied on an artificial comparison to global emissions and ignored the TNF's own research showing the importance of southeast Alaska's forests as a carbon sink: "[t]he Tongass is carbon rich, containing 8 percent of all the carbon currently stored in United States forests." PR 1904.

The FEIS's conclusion was counter to evidence before the agency which showed that timber extraction and related activities negatively impact carbon sequestration and storage. In relying on the flawed analysis from the 2008 TLMP FEIS, the BTP FEIS even failed to disclose that the Forest Service's own 2012 Technical Report, Effects on Climatic Variability and Change on Forest Ecosystems (PR 2135), acknowledged that beneficial carbon management can occur by decreasing the level of timber harvest and delaying the harvest of recovering forests before peak growth rates begin to decline. PR 2135 at 167. The report recognized that near-term carbon storage is reduced regardless of how much carbon is hypothetically stored in wood products. *Id.* at 167. In particular, it requires centuries to replace carbon stored in old growth forests. *Id.*

Indeed, the Alaska Region's own research also directly contradicts the flawed assumptions about uncertainty that underlie the 2008 TLMP analysis; "assumptions of stability are wrong, and a large potential for changes in carbon storage exists" in coastal temperate rainforests, and specifically the Tongass." PR 1904. In our DEIS comments, we provided numerous studies showing that: (1) removal of forest biomass removes from the forest carbon stored in the trees themselves and in the soils and reduces carbon inputs to soils and stimulates soil respiration, resulting in both reduced soil sequestration and near-term emissions (Exh. 226, Jandl, R. et al, 2007 at 257-258); (2) forests remain net sources of carbon emissions for more than a decade after logging operations, primarily due to increased soil respiration (*Id.*); (3) timber extraction reduces the future carbon sequestration potential of a given forest stand by removing trees that otherwise would have continued to draw CO<sup>2</sup> from the atmosphere (Exh. 227, Depro, B.M. et al 2008) and (4) the world's most carbon-dense forests, including moist temperate conifer forests of North America, show that the greatest accumulations of carbon biomass occur in the absence of human land-use disturbance (Exh. 228, Keith, et al. 2009). Yet the TNF rejects these studies as irrelevant to the BTP and southeast Alaska's coastal temperate rainforests – even though the conclusions are similar, if not identical, to the Alaska Region's own research. See FEIS, Appx. B at B-25.

The TNF throws up its hands and both the FEIS and resource report dismiss the significance of climate change while asserting that impacts of forest management activities are unknowable or minute and therefore discountable in NEPA analysis:

Even at the Forest Plan level, differences between alternatives in terms of the effects of climate change on the Tongass - and in the effects of land management

activities on climate change - are uncertain, unquantifiable, and likely to be small (especially when compared to other routine human activities). For these reasons, information on climate change was deemed not essential to a reasoned choice among the alternatives considered in the 2008 Forest Plan EIS, and therefore for these same reasons, would not be essential to a reasoned choice among alternatives for the Big Thorne EIS (Kimbell 2009).

FEIS at 3-333 to 3-334; PR 2223 at 15. This project differs substantially from a 1,000 acre partial retention logging project, a thinning project or a fire-damaged habitat restoration project. Rather, the BTP is the largest project in southeast Alaska since the pulp mill era, and likely aspires to be the largest ongoing removal of old-growth forest from federal lands in the United States. It also occurs in the heart of the third largest island in the United States lying within a coastal temperate rainforest that Alaska Region and national Forest Service experts agree is a carbon repository of global significance. *Cf. Hapner v. Tidwell*, 621 F/3d 1230, 1245 (9<sup>th</sup> Cir. 2010)(explaining that Chief Kimbell's guidance document indicates that projects involving "a relatively small amount of land" that thin rather than clearcut may be of a sufficiently small scale to excuse the agency from a direct effects analysis under *NHTSA*); *see also Earth Island Institute v. Gibson*, (843 F.Supp.12d 979 (E.D. Cal. 2011)(a 1,000 acre partial retention logging project does not require additional NEPA analysis).

But the FEIS arbitrarily omitted detailed information about the site-specific impact of forest management on carbon storage and sequestration or climate change. This information is knowable but the FEIS and resource report instead reflect confusion and make the highly misleading suggestion that whatever harm is done now can be offset in the future. *See* 2008 FEIS at 3-13 ("Generally, the capacity for a system to sequester and store carbon depends on the location, age, and species mix of the forest"); *id.* 3-14 ("Ultimately, a net loss or gain of carbon in active management situations depends on use of harvested timber, the substitute material available, the amount of carbon emitted in harvesting activities, and the amount of carbon emitted via decomposition of on-site wood waste and soil organic matter losses. If the emissions are less than the carbon stored in utilized wood, and if the system can rapidly replace losses from decomposition through tree growth, the activity may yield a net gain of stored carbon"). *See also* PR 2223 at 16.

The FEIS failed to even consider the impact of the timing of carbon emissions and suggests "positive" changes in carbon sequestration associated with action alternatives that ignored an important aspect of the problem - the critical temporal relationship between present carbon emissions and the future effects of climate change.<sup>5</sup> Because overall greenhouse gas emissions must be reduced in the very near term in order to avoid the worst impacts of climate change, the immediate release of carbon from logging will have significant impacts compared to the much longer-term release of biomass from the death and decomposition of live trees in decades or centuries. Again, the FEIS analysis fails to consider the Forest Service's own conclusions – that even counting the carbon storage in harvested

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<sup>5</sup> In our DEIS comments, we explained temperature thresholds relevant to avoiding the worst climate change impacts and indicated that emissions must peak within two years, and then decline very rapidly, meaning that minimizing greenhouse gas emissions in the next few years is critically important to meeting climate targets. *See* J. Hansen, et al., *Target Atmospheric CO2: Where Should Humanity Aim?*, 2 OPEN ATMOS. SCI. J. 217 (2008); B. Hare & M. Meinshausen, *How Much Warming Are We Committed To and How Much Can Be Avoided?*, 75 CLIMATIC CHANGE 111, 137 (2006).

wood products, harvesting from high biomass forests clearly reduces carbon storage in the near term. Short-term CO<sub>2</sub> emissions that directly, indirectly or cumulatively result from proposed forest management are highly significant in the context of efforts to avoid the worst impacts of climate change, and were arbitrarily ignored in the FEIS.

Further, the statements in the FEIS that minimized the significance of TNF greenhouse gas emissions and carbon flux as irrelevant to the problem of global climate change were misleading and arbitrarily ignored the findings of Region 10's own scientists as well as the *NHTSA* decision. Indeed, even the U.S. Supreme Court agrees that federal agencies must meet their relevant statutory obligations with regard to climate change regardless of the myriad of global greenhouse gas sources. *Massachusetts v. EPA*, 127 S.Ct. at 1463 (rejecting the EPA's argument that regulating vehicle emissions would be "an inefficient, piecemeal approach"). Thus, NEPA analysis was necessary – Alaskan forests are "regionally and globally significant, and changes in disturbance regimes will directly affect the global climate system." PR 2135 at vi. Researchers from the Juneau Forestry Science Laboratory report that northern coastal temperate rainforests "are disproportionately important in regional carbon cycling" and that "organic carbon and other materials lost from the terrestrial ecosystem are quickly transferred to freshwater and marine ecosystems with uncertain consequences for those habitats." PR 1904. Further:

Cumulative annual discharge from Tongass watersheds equals or exceeds that of the Yukon River in an area 1/13<sup>th</sup> the size. Dissolved organic carbon (DOC) concentrations are high and the total DOC flux from the Tongass is the highest per unit area of any ecosystem in the world. The volume of carbon moving in this single export vector indicates that changes in temperature and precipitation could mobilize carbon stored in forest soils and flush large amounts of carbon, nitrogen and phosphorus from the forest to the adjacent marine ecosystem, with potentially large impacts on marine productivity and the regional carbon balance. PR. 1904.

Finally, the BTP FEIS tried to excuse the lack of analysis by identifying two TLMP requirements that purport to address carbon emissions from TNF logging and road construction:

(1) A conservation strategy that includes an extensive reserve system in non-development land use designations and standards and guidelines where active management is minimized that protect over 90 percent of the existing productive old-growth habitat [and]

(2) Standards and guidelines that include specific protection measures for soils on slopes that are >67 percent and >72 percent. These measures help retain carbon stored as organic material in soils where timber harvest and road building occur. *Id.* at 3-333.

The reliance on a conservation strategy that has little relevance to this project and soil guidelines that are of limited utility in offsetting carbon losses is not a reasonable justification for ignoring an environmental issue "of national importance." The FEIS failed to acknowledge that impacts will result from management outside of the reserve system and failed to consider the significant past, present and future degradation of the BTP project area where past logging has minimized the amount of sequestration capacity considerably by removing well over half of the most productive old-growth habitat. The "conservation strategy" thus will not mitigate effects of this project on climate or carbon storage.

Furthermore, the project includes tree harvest on up to 208 acres featuring steep slopes >72 percent, including removal of old-growth timber on up to 87 acres. See FEIS at 3-325 (Table SOIL-5).<sup>6</sup> The FEIS does not quantify the extent of road construction that may affect similarly steep slopes. However, it discloses that proposed management may increase landslides on up to 54 acres and result in cumulative detrimental soil disturbance on up to 3,608 acres. *Id.* at 3-320 to 3-321 (incl. Table SOIL-6). The analysis contains no information explaining how the TLMP components discussed above would mitigate project effects on forest carbon storage and sequestration or climate change. Indeed, it supplies evidence that some activities, such as logging on steep slopes, are contrary to the Forest Plan standards and guidelines.

In sum, given the significant carbon stored in the trees and soil in the BTP, the certain release of such stored carbon to the atmosphere and ocean if the proposed logging goes forward, along with the loss of future sequestration by removing the trees and disturbing the soil, the proposed action will have very significant impacts related to climate change. The ROD and FEIS failed to accurately disclose climate change effects related to this project, provided conclusions that were contrary to the evidence in the record and thus arbitrarily rejected them as relevant to the choice of alternatives in violation of NEPA and the APA.

***b. Climate Change Impacts on Forest Management: The FEIS Failed to Analyze Resource Effects with Consideration for Climate Change Impacts***

NEPA's purpose is to "help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore and enhance the environment." [40 C.F.R. § 1508.1(c)]. High quality information and accurate scientific analysis is essential to implementing NEPA. [40 C.F.R. § 1508.1(b)]. Even former Chief Kimbell recognized that the challenges posed by climate change are "one of the most urgent tasks facing the Forest Service" and "as a science-based organization, [the Forest Service needs] to be aware of this information and to consider it any time we make a decision regarding resource development, technical assistance, business operations or any other aspect of [its] mission." Kimbell, A.R. 2008. USDA Forest Service Chief letter to Forest Service National Leadership Team. February 15, 2008.

Former Chief Kimbell's instructions, though flawed, still direct Forest Service personnel to examine climate change effects such as expected changes in precipitation and temperature patterns. PR 1919 at 2. Yet the FEIS conveniently ignores this part of Kimbell's guidance and simply repeats the TNF's longstanding position that:

because of the uncertainty related to the specific effects of climate change on the resources of the Tongass ... the best course of action is continued management of the Tongass for resiliency in ecosystem functions. This will be accomplished primarily by management of the Tongass as a mostly intact ecosystem with a robust monitoring plan that will allow for adaptive management intervention if and when effects of climate change are more certain. FEIS at 3-333.

The BTP FEIS insists that it did actually consider climate change in specific resource analyses – when in fact, it merely mentioned "climate variability" and the

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<sup>6</sup> The FEIS further does not quantify acres where timber harvest or road construction may impact carbon storage on steep slopes ranging from 67-72 percent, in apparent contradiction of Forest Plan standards and guidelines.



Pacific Decadal Oscillation (PDO) rather than the numerous specific climate change effects actually occurring in the TNF and project area.<sup>7</sup> In fact, the term climate change appears nowhere in the FEIS, with the exception of the three pages used to explain why climate change is irrelevant to the choice of alternatives.

The effort to attribute climate change effects to natural variability or the PDO fails to acknowledge the Forest Service's own realization that "climate change is occurring, and we are observing many effects on forests." PR 2135 at 61. The 2010 Climate Change Assessment for the Alaska Region (PR 1913) notes that "climate change has been affecting the Alaska Region more than any other [Forest Service] region of the U.S., with Alaska recording the most rapid temperature increases over the last century." PR 1913 at 2. The Climate Change Assessment notes that "[v]arious impacts ... have already been documented" and that "[c]limate change poses threats to numerous ecosystem services" including, but not limited to terrestrial changes: warming stream temperatures; glacial retreat; changing precipitation patterns and amounts, changed species distributions, insect outbreaks, changed fire regimes and changes to ecosystem productivity." PR 1913 at 2. Thus, "these effects will need to be accounted for and addressed in future forest plans and management actions." PR 1913 at 2.

The Forest Service's 2012 nationally-oriented Technical Report on climate and forest ecosystems similarly undermines the TNF's approach to uncertainty and recognizes that climate change and associated increases in temperature, changes in precipitation patterns and atmospheric conditions will change ecosystem structure, with "rapidly visible and significant short-term effects on forest ecosystems ... caused by altered disturbance regimes" that are "likely to cause losses of ecosystem services in some areas" with significant socio-economic effects on resource-based economies. PR 2135 at ii. Thus, "[a]lthough uncertainty exists about the magnitude and time of climate-change effects on forest ecosystems, sufficient scientific information is available to begin taking action now." *Id.* The researchers recognized that climate warming has already affected forest ecosystems in southeast Alaska through changing precipitation patterns and warming that "will influence the hydrologic cycle and thus alter fish and mammal habitat, organic matter decomposition and the [carbon] cycle." PR 2135 at 206. Yet the TNF simply insists, based on the 2008 TLMP FEIS, that "existing models do not entirely agree on how global warming will affect Southeast Alaska" and ignores the agency's own more recent review of climate change models which use "the best models for application in Alaska" and "reveal a number of predicted changes that will have significant influences on resources and their management." FEIS at 3-333; PR 1913 at 7.<sup>8</sup> The models and expert scientists clearly identify a number of important

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<sup>7</sup> See, e.g. Appx. B at B-27 (suggesting that the wildlife and subsistence analysis considered climate change when it actually referred to the PDO and "climate variability" (DEIS at 3-164-165; FEIS at 3-169-170); that the watershed analysis considered climate change when it actually explained that the TNF does not have any baseline data on water quality so it will be unable to detect changes caused by "variability" in response to climate (DEIS at 3-266; FEIS 3-278) and finally, the silviculture section does not discuss modern climate change in reference to yellow cedar decline but instead refers to a 5,000 year old climatic shift (DEIS at 3-422; FEIS at 3-417-18).

<sup>8</sup> The models are consistent with scientific review that we submitted as part of the 2008 TLMP appeal, and with other findings: (1) temperatures will increase, with winter temperatures increasing at a higher rate and significant shifts in seasonal transition month temperatures; (2) precipitation will increase with more rain than snow; (3) there will be dryer summer conditions in many locations and (4) storm intensities will increase. PR 1913 at 8.

climate change effects on project area forest resources and ecosystem services that the FEIS completely ignored.

First, the Forest Service has identified altered disturbance regimes “often occurring with increased frequency and severity” as a significant climate change effect, including insect infestations, invasive species, increased flooding, erosion and sediment delivery caused by changing precipitation patterns, drought, higher rain:snow ratios. PR 2135 at v; *see also* PR 1913 at 6 (increased storm intensity has already been noted). In particular, southeast Alaska forest ecosystems will be affected by precipitation. PR 2135 at vi. There is even an increased fire risk associated with the BTP, even with higher precipitation rates. PR 1913 at 18 (“weather extremes are generally expected to be more common with climate change ....” Fires in southeast Alaska are “likely to be of very high intensity” and “should be considered as a result of climate change”); *see also* [www.fs.usda.gov/tongass/#16](http://www.fs.usda.gov/tongass/#16) (providing fire precaution advisories, including restrictions on logging activities)(last accessed 8-11-2013).

Second, neither the Fishery nor the Cumulative Watershed Effects sections mention the word “climate change” nor do the sections contemplate the cumulative effects of climate change and project impacts on fishery resources. While we appreciate the inclusion of our Exhibit 223 in the planning record (PR 1904), the FEIS entirely failed to discuss or respond to the findings of a post-2008 TLMP scientific article, “Global climate change and potential effects on Pacific salmonids in freshwater ecosystems of southeast Alaska” which identified numerous climate change effects, including likely risks of pre-spawner and egg and embryo mortality events for pink and chum, degrade sockeye lake habitat and juvenile coho rearing habitat. *See, e.g.* PR 1904. The article noted that the “most pervasive anthropogenic effect” on salmon habitat is timber extraction. PR 1904 at 182. While the author identified intact watersheds as a buffer in southeast Alaska, the BTP project area lacks such buffers for fish populations.

This failure was significant because the BTP FEIS omitted scientific findings showing that habitat conservation will be important to the survival of sustainable fishery populations as changes in climatic conditions “will impose greater stress on many stocks that are adapted to present climatic conditions.” PR 1913 at 15. In particular, there are risks to freshwater habitat associated with changes in disturbance events, thermal regimes, precipitation changes and lower summer stream flows and experts believe “[i]mpacts to salmon populations in specific streams and rivers are likely” and thus recommend “considering thermal refugia for salmonids where possible.” PR 1913 at 15 -16, PR 1904 at 176-177. The TNF insists it will adopt a “robust monitoring” scheme and yet refuses to acquire baseline data or incorporate stream temperature monitoring in its programs. *See, e.g.* FEIS at 3-278; PR 1913 at 32. The failure to consider climate change effects on stream flow, temperature and other key components of freshwater habitat was clearly arbitrary and capricious in light of the findings of the southeast Alaska-specific article and other studies. *See South Yuba River Citizens League v. National Marine Fisheries Service*, 723 F.Upp.2d 1247, 1273-74 (E.D. Cal. 2010).

Third, the FEIS failed to consider the relationship between climate change and the BTP in the heavily modified BTP project area landscape. The FEIS identifies a “conservation strategy that includes an extensive reserve system in non-development land use designations and standards and guidelines where active management is minimized that protect over 90 percent of the existing productive old-growth habitat” as an important TLMP component to address future climate change impacts. *Id.* at 3-333. This statement is inapplicable to the project area and north-central POW, where the Forest Service and other timber managers have already extracted half the old growth and nearly 60 percent of the most valuable wildlife



habitat. ROD at 37. Further, because new information on endemic species has raised viability concerns, the TLMP Conservation Strategy's ability to maintain viable species is questionable; yet there has been no effort to consider whether climate change would "add additional stressors to these populations due to their isolated distributions and inabilities of some species to shift their distributions." PR 1913 at 31. Since the TNF refuses to develop a survey program for endemic and small mammal populations on POW, it will be unable to be aware of how the BTP and climate change affect shifts in species distribution or animal community compositions – "all important information for documenting and predicting impacts of climate change, and devising adaptations to these changes." PR 1913 at 23-33 ("Such monitoring is critical").

In light of these problems, the FEIS needed to address and disclose real threats to TNF fish, wildlife and vegetation resources that result from scientifically recognized changes in climate. Even the findings of Forest Service researchers question the FEIS's assertions of uncertainty: "climate changes have already caused large-scale forest decline and accelerated the recession of most tidewater glaciers." PR 1904. But the FEIS omitted discussion of climate change impacts on desired conditions for the project area and failed to consider the interplay between action alternatives and climate change in its analyses of direct, indirect and cumulative effects, in violation of NEPA.<sup>9</sup>

### **c. Conclusion**

Because the FEIS neither disclosed BTP impacts on climate change nor considered reasonably foreseeable effects of climate change on seasonal soil moisture, frequency and intensity of storms, landslides, and changes to precipitation patterns and evaluate the cumulative habitat loss from natural forces combined with those from past, proposed, and planned future logging, both public and private, we request you that the rescind the DEIS, FEIS and ROD due to the significant omission of analysis with regard to climate change. [40 C.F.R. § 1502.22(b)].

### **D. Procedural Deficiencies: The Forest Service Violated the NFMA, NEPA, and FACA in Developing the BTP**

The most significant procedural deficiency was that the TNF violated NEPA by predetermining the scale, location and duration of this project through a number of unlawful pre-project procedures. The CEQ regulations require that the agency "integrate the NEPA process with other planning at the earliest possible time" and "as close as possible to the time the agency is developing or is presented with a proposal." 40 C.F.R. §§ 1501.2; 1502.5. The 9<sup>th</sup> Circuit has explained that "the comprehensive 'hard look' mandated by Congress and required by [NEPA] must be timely, and it must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made." *Metcalf v. Daley*, 214 F.3d 1135, 1142 (9<sup>th</sup> Cir. 2000).

The TNF in making this decision, "determines the legal rights of a private corporation and the legal rights of those seeking to enforce the statutes protecting the environment." *Earth Island Institute v. U.S. Forest Service*, 351 F.3d 1291, 1309 (9<sup>th</sup> Cir. 2003)(Noonan, J. concurring). The TNF has a long history of impermissible bias in favor of timber production to the exclusion of other multiple uses, as observed by Fish and Wildlife Service biologists several decades ago:

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<sup>9</sup> The FEIS also failed to respond to important scientific evidence – Exh. 217 was not included in the planning record: Wolken, J.M. et al. 2011. Evidence and implications of recent and projected climate change in Alaska's forest ecosystems. *Ecosphere* 2(11):124. Doi:10.1890/ES11-00288.1.

“It is apparent that the directorate of the Tongass N.F. has made a conscious decision to maximize timber harvest in southeast Alaska with little, if any regard for consequences to plant or animal species or populations that require mature (older forest) timber habitat for all or critical portions of their life requirement. The Forest Service intends to pursue this direction until required to do otherwise by the FWS via provisions of the Endangered Species, or by the judicial system via third party litigation.” Exh. 235

The bias is in part an institutional attachment to the timber industry. *See, e.g. Earth Island Institute v. U.S. Forest Service*, 442 F.3d 1147, 1177 (9<sup>th</sup> Cir. 2006) (“the USFS has a substantial financial interest in the harvesting of timber” and “appears to be more interested in harvesting timber than in complying with our environmental laws”). Forest Supervisor Cole has “worked [his] entire career” to support the Alaska Forest Association, a timber industry group and has “fought with just about everybody in southeast” to keep AFA’s interests alive. Exh. 231. For more than half a decade, or longer, the TNF’s priority has been to “invest more time and money on projects on Prince of Wales Island” and “number 1 priority” is to make timber available to VLC and to “spend a significant amount of time” to meet this priority. Exh. 231. This institutional bias is heightened by status of this project as a “stewardship” project, which injects a financial bias in the TNF’s decision because it can retain timber sale receipts for the purpose of thinning projects. *See, e.g. Sierra Forest Legacy v. Rey*, 577 F.3d 1015, 1022-23 (9<sup>th</sup> Cir. 2009)(Noonan, J. concurring)(explaining that “[i]n the instant case the decision-makers are influenced by the monetary award to their agency, a reward to be paid by the successful bidder as part of the agency’s plan” and questioning whether the Forest Service could objectively evaluate alternatives with such a strong financial interest). The following discussion shows that Cole, and top Forest Service officials, unlawfully predetermined the location, duration and massive timber volume of the BTP project, violating NEPA and a number of other procedural requirements under federal law.

**1. Under Secretary Rey’s Directive to Develop this Multi-year Project Was Unlawful and the ROD and FEIS Violate NEPA, NFMA and the APA**

The FEIS and ROD assert that public involvement on the BTP, including informal public meetings, commenced in 2010. ROD at 40; FEIS at 1-6 – 1-7. These statements omit some of the history of this project. The decision to develop the BTP as a large volume, multi-year sale was made well before 2010. In September 2008, Under Secretary Natural Resources and Environment Rey released his decision not to conduct a discretionary review of Chief Kimbell’s appeal decision affirming the ROD and FEIS for the 2008 TLMP Amendment. PR 1606 at 5. Instead, he directed the TNF to “develop a work plan and proposed budget necessary to offer four ten-year timber sales” – which it did for the BTP. *Id.* at 9.

The FEIS now characterizes the project as a “... multi-year timber sale component of a larger stewardship effort.” FEIS at 1-2. In response to DEIS comments about the ten-year contracts, the FEIS now asserts that the TNF no longer expects to implement a 10-year contract, but instead “a multi-year timber sale is expected.” FEIS, Appx. B at B-95. The post-hoc characterization of the duration of the project in the FEIS does not remedy the serious procedural deficiencies associated with this project. It is still a long-term, large volume sale designed to “meet the intent” of Rey’s directive to implement 10-year timber sale contracts. The directive was an unlawful post-hoc modification of the TLMP. Then, the TNF’s utilization of an unauthorized federal advisory committee to determine how and where to implement Rey’s directives added to the list of procedural improprieties. Thus, the ROD violated NFMA and the APA in several ways by approving the project despite this history of procedural irregularities.

**a. Rey's Directive Was Unlawful and Violated the APA**

First, in our DEIS comments, we pointed out that the appeal regulations applicable to forest planning authorize discretionary review “at the next highest administrative level.” 36 C.F.R. § 217.17. The higher level officer makes this review “on the existing appeal record and the lower level Reviewing Officer’s appeal decision.” 36 C.F.R. § 217.17(e). Rey’s response, however, was not a discretionary review but rather a “Letter of Direction in Lieu of Discretionary Review.” Coleman, R. 2008. The regulation does not provide for a “Letter of Direction” but rather allows for discretionary review based on the record.

Rey’s directive to implement what now is the BTP was thus unlawful because it was not consistent with any legally prescribed procedure for modifying final decisions. 5 U.S.C. § 706(2). The FEIS provided no explanation or citation to legal authority indicating that Rey had the authority unilaterally implement a post-hoc modification to the appeal decision. Once Rey declined to conduct the discretionary review, Chief Kimbell’s decision became final. 36 C.F.R. § 217.17(d). The proper procedure for Rey to address his dissatisfaction would have been to remand the decision or undertake discretionary review and modify the ROD to an extent consistent with the supporting analysis. In 1999, Rey’s predecessor, James Lyons, did exactly that when he modified the ROD for the 1997 TLMP. Lyons made his modifications as part of the discretionary review process and issued a revised ROD that explained how his modifications fit within the range of alternatives considered in the TLMP. USDA Forest Service. 1999.

**b. The Directive Unlawfully Amended TLMP, Violating NFMA**

Second, we further indicated that Rey’s directive, and the development of this long-term project itself, constitute a significant amendment to the 2008 TLMP that failed to follow prescribed procedure for programmatic forest planning documents. Rey’s “Letter of Direction” incorrectly assumed that “[n]one of the direction is outside of the Record of Decision.” PR 1606 at 5. But the TLMP ROD was not consistent with Rey’s direction. The TLMP ROD’s explanation of the timber sale program explicitly referred to a 3 year period for completion of timber sales and did not identify “multi-year” projects of indeterminate duration. TLMP ROD at 68. Rey further acknowledged that plan amendments may be necessary to address several of his directives. Tongass National Forest, 2008 at 2, 5. The Forest Service’s subsequent review of the TLMP in light of Rey’s directives indicated that at least one of Rey’s directives would require a controversial amendment or revision of the TLMP. Id. at 10.

Public notice is necessary for any amendment, significant or otherwise. *Forest Guardians v. Thomas*, 967 F.Supp. 1536, 1561 (D. Ariz. 1997). NFMA and its implementing regulations require that there be substantial public involvement in significant amendments to forest plans. 16 U.S.C. § 1604(d), 1604(f)(4); 36 C.F.R. § 219.6, 219.10(f). The TNF never provided any public notice regarding a significant amendment to the 2008 TLMP (which became final once Rey declined discretionary review) through the development of specific, extended “multi-year” projects. Neither the programmatic nor project-specific NEPA analyses provided any indication that the TNF considered factors that are relevant to the determination of whether these changes constitute a significant amendment to the Forest Plan. See, e.g. FSH 1909.12 § 5.32(3)(a)-(d). The decision to proceed with implementing Rey’s sua sponte directives failed to comply with NFMA’s public notice requirement for amendments, the Forest Service’s responsibility to consider the significance of amendments and the consistency of the project itself with TLMP.

***c. The Directives, and Implementation of this Project By Itself, Violate NFMA Because they Are Inconsistent with the TLMP***

Third, Rey's directives and the implementation of this project violated NFMA because they are inconsistent with the TLMP and its supporting analysis and methodologies. The Forest Service's review of Rey's directive specifically indicated that "[t]he concept of preparing 10-year timber sales was not considered during the development of the 2008 Forest Plan Amendment." [Tongass National Forest. 2008 at 12]. Even timber industry TLMP appellants recognized that ten year projects would be inconsistent with the Timber Adaptive Management Strategy. SE Conference Appeal. They realized that the revision would have to "[re-]evaluate timber demand based on the needs of the timber industry including the preparation of ten year timber sales." SE Conference Appeal.

Indeed, the multi-year project is even inconsistent with the TNF's methodology, such as it is, for estimating market demand under the TTRA. Forest Plans must include "the planned timber sale program." 16 U.S.C. § 1604(f)(2). The TTRA provides additional guidance to the Tongass timber sale program through its exhortation to seek to meet the "annual market demand." 16 U.S.C. 539d(a). The 2008 TLMP's planned timber sale program explicitly measures its ability to satisfy the requirements of the "seek to meet" language in terms of three year timber supply. TLMP FEIS, Appx. G at G-10-11.

Appendix G to the TLMP FEIS described the procedures for meeting market demand and planning timber sales explicitly in terms of a three year supply. 2008 TLMP FEIS, Appx. G at G-10-11. The procedures for calculating that supply use the Morse methodology developed in 2000 that determines annual sale levels rather than decadal sale levels. TLMP FEIS at 3-510. The environmental analysis that describes the timber sale program states that "[t]imber contracts typically give the purchaser 3 to 5 years" and that the "Forest Service attempts to maintain about 3 years of unharvested timber volume under contract to purchasers." TLMP FEIS at 3-334. Even the description of the district ranger planning process explains that districts are to develop a timber program for just several years of the planning cycle and identify and recommend project areas for a 5 year plan. FEIS, Appx. At A-17.

The rationale for this approach, in part, is that it is difficult to make long-term demand projections. The TNF's rationale for using short-term demand projections to respond to the TTRA was that:

[p]rojecting demand over the planning cycle has a higher degree of uncertainty and depends on numerous factors that are difficult to predict, including changes in technology, growth and exchange rates in key markets, changes in consumer tastes and preferences, as well as developments in other producing regions whose products compete with those of Alaska. The difficulty of developing long-term projections for the timber industry in southeast Alaska is further exacerbated by the current circumstances confronting the industry, which ... has been in a period of transition since closure of the pulp mills in the 1990s. [2008 TLMP FEIS at 3-510].

Appendix A to the FEIS also fails to explain how this multi-year commitment conforms to the TNF's procedures for implementing timber sales. The Appendix reiterates that forest products markets are "volatile, especially in the short run" and that "[i]t is difficult to estimate the demand for timber, even a year or two in advance." FEIS, Appx. A-8. The Morse methodology timber sale procedures are thus "adaptive" and offerings would be reduced if harvest levels drop below expectations. *Id.*

The multi-year commitment is inconsistent with a prescriptive methodology that dictates procedures for short term changes based on market fluctuations and mill utilization. For example, there is no assurance that the large scale cedar export/sawmill business model capable of purchasing 150 million board feet is sustainable over a decade. Indeed, VLC

constantly threatens to close down operations and claims that it nearly closed twice in the past five years. According to permit applications submitted by Boyer Towing in 2007 and the Forest Service in 2012, VLC would have closed in 2007 and 2012 unless state agencies waived logging transportation guidelines and state water quality standards. Alaska. 2007; Alaska. 2008.

Thus, implementation of the multi-year timber sale project was inconsistent with TLMP and its previously adopted procedures and methodologies for scheduling timber sales and the previously provided rationales. Further, this project significantly deviates from the range of alternatives contemplated in the 2008 TLMP Amendment and the environmental analysis provided in the TLMP FEIS. Because the TNF, in implementing the BTP, is proceeding under an unlawful directive, and because the BTP is inconsistent with the TLMP ROD and FEIS, we request that you rescind the ROD and all prior NEPA analyses and request that the Chief of the Forest Service undertake a review of procedural irregularities associated with Rey's directive prior to any further planning on large volume, multi-year timber sales.

***d. The FEIS and ROD Also Violated NEPA by Failing to Supplement Programmatic Economic and Environmental Analysis and by Failing to Respond to Comments***

Finally, the decision to proceed with a multi-year project also violated NEPA in two ways. First, Rey's directives implicate NEPA's requirements to supplement the TLMP's environmental and economic analysis. NEPA regulations require that federal agencies prepare supplemental NEPA documents if "[t]he agency makes substantial changes to the proposed action that are relevant to environmental concerns." 40 C.F.R. § 1502.9(c). A key criterion for the decision to supplement is whether the change causes effects that significantly differ from those already studied. *Marsh*, 490 U.S. at 373-374. The Council for Environmental Quality's (CEQ) guidance on this requirement suggests that supplementation may be necessary when the changes to a proposed action are more than a "minor variation" of alternatives previously discussed. CEQ's Forty Most Asked Questions. Second, The FEIS failed to address comments requesting that the TNF explain why it proceeded with this project in light of the procedural deficiencies. NEPA requires that an FEIS respond to comments in one of five ways, including modifying the action, making corrections, or, at a minimum, explaining "why the comments do not warrant further agency response, citing the sources, authorities or reasons which support the agency's position." 40 C.F.R. § 1503.4. The FEIS neither responded to our comments regarding the TNF's legal justification for proceeding with a multi-year sale nor addressed our policy concerns regarding the monopolistic and long-term environmental concerns associated with long-term projects. Instead, the response to comment merely recharacterized the project as "multi-year" without making any substantive changes that would distinguish the project from the terms of Rey's directive.

***2. The Forest Service Compounded the Procedural Deficiencies and Violated NFMA, NEPA and FACA by Siting this Project Through the Tongass Futures Roundtable***

Rey's 2008 memorandum also directed the TNF to "actively involve" the Tongass Futures Roundtable (TFR) in the development of four ten year timber sales well prior to the commencement of the NEPA process. PR 1606 at 5. The TNF then contacted the TFR, invited them to participate in the effort and stated that it "will work directly with the Framework Committee of the Roundtable ... to determine where these projects will most appropriately serve their purpose." *Id.* at 9. TFR members conducted an initial review and selected four proposed locations, including the Big Thorne Project area. *Id.*

The ROD thus implements an unlawful directive to utilize an unauthorized advisory committee in deciding when and where to site timber sales. Congress enacted FACA in 1972

in response to concerns about closed door meetings and undue influence from special interest groups and to “enhance the public accountability of advisory committee established by the Executive Branch and to reduce wasteful expenditures on them.” *Public Citizen*, 491 U.S. at 459. FACA defines an advisory committee as a group “established or utilized” by a federal agency “in the interest of obtaining advice or recommendations” for federal programs. 5 U.S.C. App. 2 § 3(2). FACA governs the management of any “committee, board, commission, council, conference, panel, task force of other similar group, or any subcommittee or other subgroup thereof” which is established or utilized by a federal agency for the purpose of soliciting advice on agency activities. 5 U.S.C. App. § 3.

Further, NFMA provides that the Forest Service “shall establish procedures, including public hearings where appropriate, to give the ... public adequate notice and an opportunity to comment upon the formulation of standards, criteria, and guidelines applicable to Forest Service programs.” [16 U.S.C. § 1612(a)]. The statute specifically requires compliance with the Federal Advisory Committee Act:

In providing for public participation, in the planning for and management of the National Forest System, the Secretary, pursuant to the Federal Advisory Committee Act (86 Stat. 770) and other applicable law, shall establish and consult such advisory boards as he deems necessary to secure full information and advice on the execution of his responsibilities. The membership of such boards shall be representative of a cross section of groups interested in the planning for and management of the National Forest System and the various types of use and enjoyment of the lands thereof. [16 U.S.C. § 1612(b)].

The TFR was an advisory committee within the meaning and coverage of FACA and was subject to its requirements. Region 10 purposefully failed to comply with its notice, reporting and balanced representation requirements. Cole and Rey initially sought financing for and developed the TFR for the purpose of obtaining recommendations for interim and post-TLMP amendment timber sale schedules. Following the 2008 TLMP Amendment, Rey then issued his unlawful directive for the TNF and TFR to implement four ten-year timber sales, resulting in the BTP. Region 10 staff developed timber sale schedules and used public facilities to host the TFR. The extensive allocation of staff time and failure to report expenditures<sup>10</sup> exemplifies the Region 10’s unlawful use of the TFR. The recent demise of the TFR does not cure the significant procedural deficiency caused by its role in predetermining the volume, location and duration of this project prior to the commencement of public scoping.

The FEIS violated NEPA by failing entirely respond to our DEIS comments outlining this serious procedural problem. 40 C.F.R. § 1503.4. We incorporate here by reference Part II.E of our DEIS comments explaining the establishment and utilization of the TFR in detail and how it pertained to the pre-decisional and pre NEPA work on this project. We reiterate the following key points:

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<sup>10</sup> FACA required that the committees expire in two years and report expenditures. The Region 10’s utilization of the TFR is a considerable and unlawfully unreported taxpayer expense. Taxpayers financed the travel and meeting attendance for the highest ranking local, regional and national Forest Service officials to attend meetings for more than six years and fly across the country raising funds for other TFR members. Typically, the Regional Forester, Deputy Regional Forester, Forest Supervisor and Deputy Forest Supervisor attended every meeting. [Region 10. 2006, 2007, 2008, 2009]. Former Deputy Supervisor Rappe-Daniels continued to attend as a member even after retiring from the Forest Service in 2008. [Region 10. 2008].

(1) The Forest Service - Rey and Alaska Region staff established<sup>11</sup> the TFR primarily for work related to timber management issues by initiating the process through the Forest Service's congressionally chartered foundation - the National Forest Foundation. The TFR's primary – if not exclusive function – was to provide the TNF with advice and recommendations on its timber sale programs.

(2) The Forest Service did all the groundwork necessary to set up the initial meeting and even developed the TFR concept. The TFR concept was developed by TNF Supervisor Forrest Cole. Bluemink, E. 2006. Alaska Regional Forester Dennis Bschor, Cole, Tongass Deputy Supervisor Olleke Rappe-Daniels and Dennis Neill from Alaska traveled to Seattle to attend the first meeting. Region 10. 2006. USDA General Counsel Tim Obst, Chief Bosworth and Mark Rey also attended. Region 10. 2006. Three other Forest Service personnel and the NEPA contractor responsible for the TLMP Amendment and the BTP were there as presenters. TFR Meeting. May 2006. Five of the other initial participants represented foundations. TFR Meeting. May 2006. The Forest Service then continued to spearhead the establishment of the TFR immediately after this initial meeting and dictated its primary agenda – timber supply from federal lands. Region 10. 2006; Cole, F. 2010.

(3) The Forest Service engaged in fundraising for the TFR and working to maintain the Alaska congressional delegation's interest in the committee. Indeed, less than a year after retiring from the Forest Service and helping to instigate the initial meeting, General Counsel Obst obtained employment that involved soliciting foundation funding for the Tongass Futures Roundtable. Obst, T. 2007. In 2007, Rey held teleconferences regarding the TFR, met with TFR funders to discuss their role with the group and solicited the funds needed to operate the TFR. Region 10. 2007. Five Forest Service personnel flew to New York to meet with Theodore Roosevelt IV in New York and reported that Roosevelt offered suggestions for involvement with foundations. Region 10. 2007.

(4) The Forest Service and other participants sought to evade FACA requirements up front by having other entities act as co-chairs. Information Insights. 2006. The Forest Service deferred decisions about FACA to future meetings. Information Insights. 2006. In 2007, Rey recommended establishing a charter for a FACA group to keep the discussions going. Brewster, P. But Region 10 personnel continued to question whether or not to comply with FACA well over a year because the procedures were strict, lengthy and time-consuming even though they realized that the group would need to be a FACA committee in order to fulfill its advisory role. Uloth, E. 2007. Partnership Coordinator Erin Uloth provided Deputy Forest

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<sup>11</sup> The word “established” is to be used “in an expanded sense of the word” and “in a generous sense” and with a “broad understanding” in order to encompass all such committees formed directly or indirectly by the federal government or its agencies. *Miccosukkee Tribe*, 304 F.3d at 1085; *Public Citizen*, 491 U.S. at 462-63. This “generous” interpretation of “established” refers not just to committees directly established by the agency, but also to those committees established for the agency. *Public Citizen*, 491 U.S. at 463. FACA clearly applies when an agency establishes a group formed by an entity other than a federal agency when the establishing organization can be described as “quasi-public.” Quasi-public status can occur when the semi-private establishing entity is “so closely tied to an agency as to be amenable to strict management by agency officials” or is “[any] semiprivate entity the Federal Government helped bring into being.” *Animal Legal Defense Fund, Inc.*, 104 F.3d at 430. Federal start-up funding provided the initial capital for the National Forest Foundation (NFF); the Secretary of Agriculture appoints the NFF board and the chief of the Forest Service is an ex officio board member and the NFF has unlimited discretion to utilize Forest Service personnel, facilities and equipment subject only to terms implemented by the Secretary of Agriculture.. 16 U.S.C. § 583j.



Supervisor Rappe-Daniels with the regulations and Forest Service guidance regarding FACA but Rappe Daniels took no further action.

(5) The TNF then utilized the TFR to provide advice on timber sale location, including the BTP.<sup>12</sup> Alaska Region personnel provided the information used to make decisions and the primary focus of the group was to develop recommendations for TNF timber sale programs and specifically this project – at the explicit direction of high ranking Forest Service officials. The TFR was to site timber sales and determine timber sale schedules under the 1997 and 2008 TLMP. The Alaska Region held numerous formal and informal meetings with TFR members without providing public notice of the meetings and public statements regarding the objectives of these meetings. See, e.g. 36 C.F.R. § 219.6. Initially, the Alaska Region prepared or provided material showing how much timber volume the industry could harvest under different Forest Service timber sale scenarios to a “bridge timber” committee. USFS. 2006.. The charter for the Bridge Timber Working Group explicitly tasked the group with reviewing timber sales and making project recommendations. TFR. 2006. Forest Service personnel Rappe-Daniels, Dennis Neill, Larry Lunde and Lee Kramer participated in the subcommittee’s three meetings. Cole, F. 2010.

(6) The Bridge Timber Working Group eventually became the Framework Committee. Current TNF Deputy Supervisor Tricia O’Connor drafted the Framework Committee Purpose Statement and the Framework Committee proposal. O’Connor, T. O’Connor directed the committee to submit a proposal to the Forest Service that would preclude timber sales in some undeveloped areas and authorize timber sales and weakened environmental standards in other developed areas. *Id.* In order to guide the committee, the Forest Service prepared presentations for the committee on the need to reduce environmental protections in order to meet the needs of timber operators and materials comparing various timber projects in the current five year schedule. Sisk, J. 2007. The Alaska Region’s utilization of the TFR then shifted to the pending TLMP amendment through multiple regular and private exclusive meetings with Forest Service personnel in 2007. Region 10. 2007, Cole, F. 2010, TFR. 2007. The Alaska Region held exclusive TLMP amendment webcasts and teleconferences for the TFR. *Id.*; Rappe-Daniels. 2008. Eventually, Cole would delay the completion of the 2008 TLMP amendment in the hope that the group would first come to several agreements. Bluemink, E. 2006.

(7) After completing the TLMP amendment, the Alaska Region renewed efforts to utilize the Framework Committee to develop the five-year timber sale schedule. Cole arranged for the use of a Forest Service conference room and provided material to inform the discussion of timber projects. [Dovichin, E. 2008]. He requested that any TFR personnel present would have the authority to make decisions. [*Id.*]. Meeting participants included usual Forest Service representatives and additional staff from three ranger districts at this meeting to review eleven timber sales. [*Id.*]. After this meeting, Cole recommended that TNC’s Dovichin meet with Rey in Washington D.C. [*Id.*]. Dovichin subsequently met with Rey, Legislative affairs director Doug Crandall and associate Forest Service Chief Sally Collins in July to discuss the TFR and timber sale schedule. [Region 10. 2008]. Later the same month, Cole met with Rey, TFR conservation group representatives and the Alaska Forest Association at the regional office. [*Id.*].

(8) Following these meetings, on September 17, 2008, Rey issued the directive to engage the TFR in the development of the long-term timber projects. Kimbell, A. 2008. Cole and TNC personnel met again the next day. Region 10. 2008. Dovichin, E. 2008. The following

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<sup>12</sup> A committee is “utilized” when the agency either has management of the committee or exerts some other type of control, but not necessarily both. 68 Fed. Reg. 37720.



week, TNC sent out a five year timber sale schedule that “addresses some of Mark Rey’s directives.” [Rush, K. 2008].

(9) Finally, the TFR and its Framework Committee ended up working “directly” with the TNF to site this project. PR 1606 at 9. Thus, it is clear the Alaska Region utilized the TFR in determining the location, duration and scale of the BTP.

### **3. *The ROD Violated the U.S. Constitution By Depriving Individuals with Liberty Interests in Project Area Resources of an Impartial Decision-maker***

Finally, the TNF’s commitment to developing a long-term project designed solely for a single sawmill deprived members of the undersigned organizations of Constitutionally protected liberty interests in subsistence and commercial fishing lifestyles and science professions of an impartial decisionmaker for this project, violating the U.S. Constitution’s procedural due process requirements. *See e.g. Goldberg v. Kelly*, 397 U.S. 254 (1970); *U.S. ex rel. Miller v. Twomey*, 479 F.2d 701 (7<sup>th</sup> Cir. 1973). As discussed in the preceding sections, Forest Supervisor Cole was impermissibly biased in favor of selecting the highest possible volume alternative for VLC. Indeed, in 2009 Cole approved the largest timber sale produced by the TNF in well over a decade – the 73 MMBF Logjam timber sale, which was also well in excess of the volume disclosed in the initial scoping notice. Logjam ROD at R-1, R-2; Cole, F., 2005. Logjam EIS Scoping. U.S. Forest Service, Alaska Region, Thorne Bay, AK May 2, 2005. Indeed, a primary focus of the IDT team was to meet a “desired target” and “industry standards for [a] ten year sale” of 150 – 200 MMBF. PR 2260 at 4, 6. made the final decision on the project, selecting the highest volume alternative, when he should have recused himself because of his known and constitutionally impermissible level of bias in favor of perpetuating VLC’s timber operation.

### **4. *The Planning Record Should Have Been Available Concurrently With the Notice of Availability and Was Incomplete, and the Delay and Missing Documents Substantially Undermine the FEIS and Decision and Public Review, Violating NEPA and the APA***

The TNF unreasonably failed to complete and make available the project planning record prior to the signing of the decision document in compliance with the TNF’s own regulation adopted by the Forest Supervisor. *See* FSH Supplement No 1909.15-2009-1 (as authorized by Forest Supervisor Cole on March 1, 2009). We requested that the TNF extend the appeal deadline due to the delay in releasing the planning record, which was not even mailed until July 9, 2013 – well over a week after the commencement of the appeal period. Exh. 236, 237. The delay was unreasonable and substantially harmed our ability to review a voluminous record and utilize it in our analysis of the FEIS and ROD. The length and quality of our appeal should not be used to imply that the delay did not prejudice our ability to appeal – despite our ongoing review of the planning record, we are still discovering problems with the index and missing documents. Our request for an extension was denied without reference to the FSH Supplement, and for that reason we protest the denial and legitimacy of this appeal process.

Further, the delay also violated NEPA. As discussed in subsequent sections of this appeal, the FEIS did not provide sufficient site-specific information and the planning record was necessary in order to meaningfully review the FEIS. The purpose of NEPA is to “insure that environmental information is available to public officials and citizens before actions are taken.” 40 C.F.R. § 1500.1(b). Further, “[a]ccurate scientific analysis, expert agency comments and public scrutiny are essential to implementing NEPA.” *Id.* The failure to provide the public with some of the information necessary for a meaningful comparison of alternatives at the commencement of the appeal period constituted a de facto reduction of the

appeal period and was wholly inconsistent with NEPA's goals for public participation in agency decisionmaking. 40 C.F.R. § 1500.21 (requiring agencies to make reasonably available all material incorporated by reference within the time allowed for comment).

## **5. Conclusion**

The BTP implements a directive that was produced without the observance of legally required procedures, including the use of an unauthorized advisory committee established and utilized by the Alaska Region for the purpose of obtaining advice and recommendations on public land management issues, including the development of the BTP. Rey's unlawful directives and the TFR's advice on this project and a long-term, multi-year timber supply are well outside the bounds of the TLMP ROD and FEIS alternatives. Because the ROD approves a project that was planned in violation of the public process requirements provided in NFMA, FACA, NEPA and the APA, the Regional Forester should rescind the FEIS and ROD with instructions to the TNF to reinitiate a scoping process prior to planning any timber sales in the project area.

## **E. Conclusion**

For the reasons above and below, we request that the ROD and FEIS be withdrawn. The purpose and need for the project was unreasonably restricted to the objectives of a private entity, resulting in an unreasonable range of high volume alternatives. The FEIS entirely failed to ignore significant issues that are particularly relevant to this project, including Congressional policy objectives relevant to the timber monopoly and environmental effects of long term timber sale projects, Sealaska's legislation, and climate change. Additionally, there were numerous procedural deficiencies associated with pre-NEPA planning on this project and omissions of important details that are essential to a reasoned decision and reasonable multiple-use balancing.

## **II. Significant Issue 1: Timber Economics and Management**

In our scoping and DEIS comments, we requested that the Forest Service update programmatic and project-area economic analyses as part of the process involved with the FEIS. This project will entail considerable expenditures of financial and natural capital to support a sales program dependent on highgrading the most valuable and largest trees for export as raw logs. The FEIS provided a misleading assessment of benefits and costs that biased the project design in favor of long-term, intensive timber removals. Section II.A discusses the failure to assess the costs associated with this project – both in terms of direct public subsidies and substantial environmental external costs. Section II.B explains that the FEIS provided a misleading assessment of regional economic benefits. Section II.C addresses the ongoing failure to correct the TNF's market demand methodologies. Section II.D discusses the result of the flawed economic assumptions – the TNF's decision to clearcut numerous massive cutting units currently surrounded by habitat that is already unsuitable for many wildlife species. The final section questions the use of stewardship contracting in this project.

### **A. The Public Investment Analysis Was Misleading<sup>13</sup>**

Our scoping and DEIS comments requested a detailed public investment analysis that discloses the full taxpayer subsidy associated with administering this project. We also requested a more thorough analysis of benefits provided by intact old growth forests to recreation, fisheries and subsistence. But the DEIS and FEIS both ignored the impacts to important regional economic sectors and grossly underestimated the costs associated with this project. The NEPA analysis measured only timber sale economics: (1) timber volume; (2) logged acres by logging system and prescription; (3) miles of road construction and reconstruction; (4) logging and transportation costs; (5) indicated bid value and (6) number of annualized direct jobs. [FEIS at 3-17].

These measurements do not adequately reflect a true cost/benefit analysis of this project. This error was significant because the TNF justifies its timber program based solely on economic benefits. In our administrative appeals and in comments on other timber projects, we have repeatedly asked the Forest Service to take a hard look at the employment and economic impacts of timber projects, to incorporate the true costs of road construction, administrative costs and other subsidies and to discuss detrimental impacts to other resource users. When an agency cites potential benefits in order to promote a project and avoids citation of costs, the cost-benefit analysis is “reduced to a sham” and violates NEPA. [*Sierra Club*, 695 F.2d at 975-76].

The public cost disclosures in the FEIS were a sham and the lack of credible information on the total costs to conduct the TNF timber program and produce a thousand board feet of timber is the most significant failure of the BTP financial analysis. Both the updated and programmatic analyses are inaccurate and the Forest Service has unreasonably delayed fixing that problem. [5 U.S.C. § 706(1)]. As shown in the following sections, this project will require a massive taxpayer subsidy to produce a mere three million dollars in revenue. Forest Supervisor Cole has insisted that the TNF “is not managed to produce a maximum net revenue” and that the administrative costs of other programs also exceed receipts. Cole, F. 2004. But this project is not a mere matter of net revenue; it generates a taxpayer loss well in excess of a hundred million dollars in order to subsidize one private company’s unsustainable resource extraction business. It is hard to believe that losses incurred in other programs are comparable. Our specific concerns follow.

#### **1. The FEIS Failed to Adequately Disclose Public Investment Costs**

Because this project entails high risk to wildlife, fisheries and forest-dependent economies and cultures, the agency cost is an important aspect of the pending decision. The NEPA analysis, at a programmatic and project level, failed to fully disclose and discuss actual public expenditures on this project and provided a “Net Value” of -\$6 million, FEIS at 3-37, for the selected alternative that was misleading because the TNF’s cost assessment estimates unreasonably exclude numerous significant timber program costs. Consequently, the TNF violated NEPA by providing misleading cost disclosures and further failed to consider these costs in making the decision to proceed, downsize or rescind planning on this project. 36 C.F.R. § 219.12(g); 40 C.F.R. §§ 1502.14, 1502.16; 40 C.F.R. § 1502.24; *Natural Resources Defense Council*, 421 F.3d at 811.

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<sup>13</sup> See, e.g. *Sierra Club v. Thomas*, 105 F.3d 248, 251-52 (6<sup>th</sup> Cir. 1997) (“forest planning, as practiced by the Forest Service, is a political process replete with opportunities for bias and abuse .... Consequently, decisions may be made, not because they are in the best interest of the American people, but because they benefit the Forest Service’s fiscal interest”).

In planning a timber project, the Forest Service needs to compare the taxpayer funds spent administering a project with the prospective returns to the public. That analysis “compares estimated Forest Service expenditures with estimated financial revenues” and allows the decision maker and the public to gain some understanding of “the future financial position of the program if the project is implemented.” FSH 2400.18\_30; FSH 2409.18. Part of the purpose of this analysis is to fulfill NEPA’s requirement to “balance a project’s economic benefits against its adverse effects.” *Hughes River Watershed Conservancy*, 81 F.3d at 446. The regulations make clear that this obligation applies to site-specific actions as part of the Forest Service’s ongoing monitoring and evaluation obligations. 36. C.F.R. § 219.12. In general, the Forest Service should “manage the timber sale program so that the total benefits equal or exceed the total costs over time” and “[o]perate programs and projects in the most cost-efficient manner practicable.” FSM § 2430.3.

NEPA’s hard look requirement also mandates a reasonable cost-benefit analysis, particularly in the context of this project which justifies massive environmental harm on the basis of purported economic benefits. In general, the standards for a cost-benefit analysis do not require are not demanding. [*Columbia Basin Land Protection Ass’n*, 643 F.2d at 594]. At a minimum NEPA “mandates at least a broad, informal cost-benefit analysis by federal agencies of the economic, technical, and environmental costs of a particular action.” [*Sierra Club*, 695 F.2d at 975-76]. But it is “vitally important” that this broad systematic analysis “fully and accurately” disclose the costs. [*Id.*]. This FEIS and the supporting programmatic analysis failed this standard because the cost/benefit analysis provided was “insufficiently detailed to aid the decision-makers in deciding whether to proceed, or to provide the information the public needs to evaluate the project effectively.” *Columbia Basin Land Protection Ass’n*, 643 F.2d at 594. This made it impossible to make an informed comparison of the alternatives and invalidates the EIS. *Ecology Center Inc.*, 430 F.3d at 1067.

The particular concern pertains to the “estimates” of large-timber sale program costs per MBF. The DEIS continued to use programmatic and outdated cost figures of \$23/MBF for sale preparation, \$9/MBF for sale administration and \$28/MBF for engineering support. DEIS at 3-36. The FEIS provided an entirely new cost “methodology” which indicated that these costs have decreased to \$21/MBF for sale preparation and \$23/MBF for engineering support with a slight increase to \$12/MBF for sale administration. FEIS at 3-37, PR 1594. Neither the ROD nor the FEIS disclosed the public cost of the selected alternative as modified in by the Forest Supervisor’s decision. At the disclosed costs, the project would have cost \$8,344,000, excluding NEPA analysis costs in order to generate a \$3,115,464 bid value, or a public loss of more than \$5 million. The FEIS discloses a NEPA preparation cost of \$48 per MBF, for a total per/MBF cost of \$103. FEIS at 3-37, PR 1594. NEPA costs for the ROD were thus \$7,152,000 using Forest Service estimates, increasing the disclosed public cost to more than \$12 million.

Both the previous and “updated” cost figures, in light of actual programmatic and project-specific timber program expenditures, were highly misleading. Actual costs per MBF of timber from the base period used in the BTP financial analysis (FY 2010 – 2012) were \$1,335/MBF when accounting for actual TNF expenditures for timber, logging roads and overhead costs based on actual timber consumption rather than theoretical timber volume demand – more than thirteen time greater than the reported agency costs. Exh. 239 (Mehrkens Decl.) at 9. Thus, using this average, the public cost subsidy for the old-growth sawlog volume alone exceeds \$150 million – a massive increase over the \$12 million figure derived from disclosures in the FEIS and ROD.

The programmatic cost figures (\$101/MBF) rely on a 20 year old average from the budget allocation process that was accurate for a three year period from 1991 – 1993. The new cost

figures use a “snapshot” of three fiscal years to obtain an average and are explained in a one page document that fails to provide the underlying data used to calculate the estimates or explain the exclusion of numerous timber-related budget expenditures from road-construction to post-project costs, and omit specific and known expenditures for this project. The TNF justifies its timber program entirely on economic benefits but has never come clean on the actual program costs. The information about the public cost required to fund this project is misleading and akin to the market demand error that impaired the Forest Service’s analysis of adverse environmental effects in the 1997 TLMP. *NRDC*, 421 F.3d at 811-12.

***a. Ongoing History of Flawed Cost Assessment Methodologies: Both the TLMP and the BTP FEIS “Snapshot” Cost Disclosures are Highly Misleading***

NFMA requires the Forest Service to disclose in an EIS the economic effects of alternatives, include agency and public costs using procedures specified in the CEQ regulations that implement NEPA. FSH 2400.18\_30. NEPA requires the Forest Service to “ensure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements” and explain the methodologies and provide sources. 40 C.F.R. § 1502.24. In our TLMP appeal we pointed out that the Forest Service had not provided any documentation or support for the assumption that agency timber sale program costs amounted to the \$101/MBF public cost disclosed in the DEIS. DEIS at 3-36. The only known basis for this figure comes from a deposition dates back to the 1990s. Forest Supervisor Cole’s declaration states that:

Region 10 continues to use the \$101/mbf figure for its budget requests and our experience is that we do not run of money for the various cost centers preparing and administering our base timber production goals. Informal evaluations after the 1999 Monitoring report have not caused us to change the use of the \$101/mbf figure. [Plaintiff’s Reply, Case No. J04-010CV].<sup>14</sup>

There is a significant inconsistency between the disclosed total public cost with Alaska Region programmatic and national budget data. At a national level, between 1995 and 2005 annual direct appropriations for logging increased by nearly \$100 million while Forest Service timber outputs dropped in half. Exh. 201; Voss, R. 2005. These calculations were done using a methodology validated by the Congressional Research Service (CRS). For example, CRS had reviewed previous estimates showing that “\$1.2 billion is a reasonable estimate of the net cash loss from the Forest Service’s 1997 national timber program.” *Id.*

The cost/output ratio of TNF expenditures has followed a similar trajectory. In our appeal of the Tonka stewardship project, we provided a table based on annual TNF cost and output monitoring reports showing that it costs the TNF roughly 1.1 million dollars in “sunk”, present and future costs to produce 1 million board feet of timber using the CRS approved methodology and exhibits provided with the 2008 TLMP appeal. *Id.* In response, the Alaska Region’s Appeal Reviewing Officer insisted that:

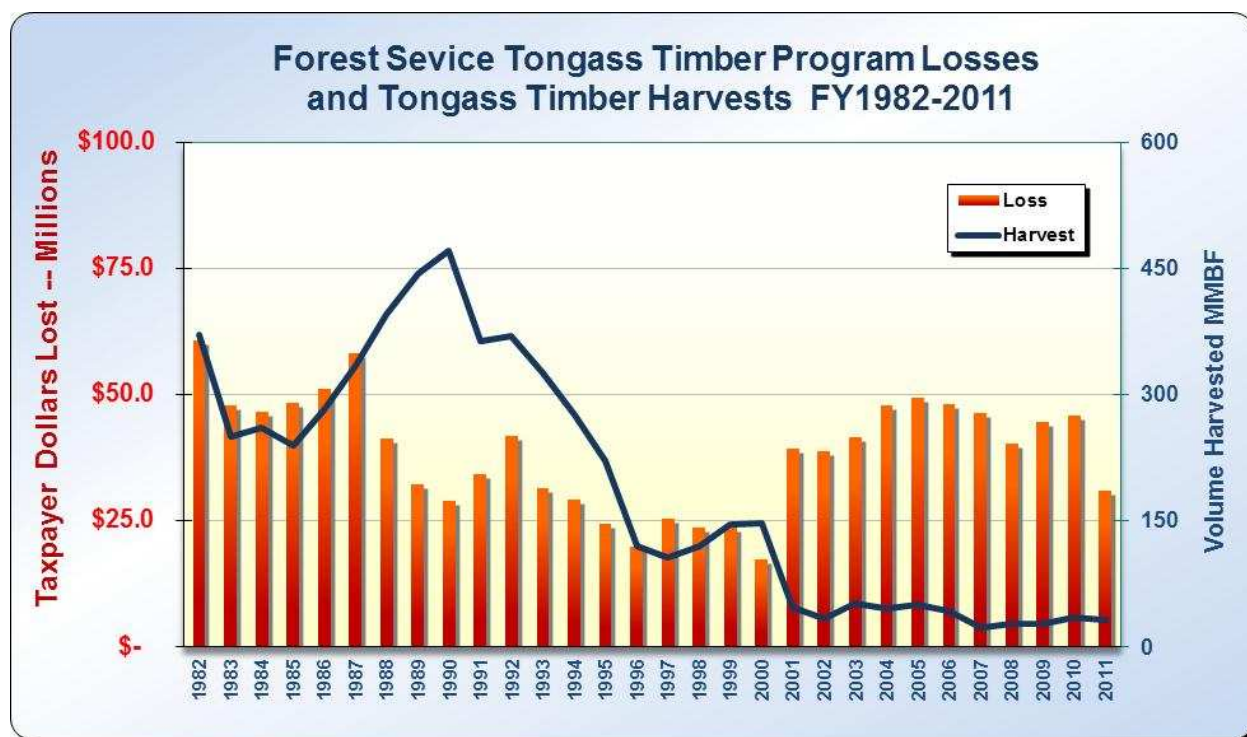
...Alaska Region average administrative costs have been verified by various means, including budgeting and contract cost monitoring, and are used in budgeting project EISs, briefings, budget-related requests for information, and the ten year timber sale schedule. These costs are an estimated average across the Forest, and have remained low, in part, because of increased efficiencies. [Monahan, R. 2012].

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<sup>14</sup> PR 1201: “[t]hese figures were developed in the late 1990’s and early 2000’s by tracking individual projects and their costs through each of the cost centers. Subsequent evaluations, the most recent in 2010, have not led us to make changes to these costs, as they have remained fairly constant and defensible without the use of any adjustments. These figures represent the Forest averages, and an individual project’s cost may vary widely from the average.”

We then requested verification through a Freedom of Information Act (FOIA) request. None of the material provided any indication that the TNF has ever undertaken a review of its costs per MBF after adopting Cole's \$101/MBF cost estimate. Exh. 239 at 8. Cole's declaration would be accurate only to the extent that it reflects the Tongass average cost from 1991 – 1993. Exh. 203, EE-A. 2012. The ten-year average from the 1990s increased slightly to \$140/MBF. *Id.* The ten-year average from 2001 – 2010 was \$1,226/mbf and the most recent three year average from 2009-2011 was \$1,282/MBF. *Id.* As shown in figure 1, this unjustifiable cost to output ratio continues:

Figure 1



We attached as an exhibit to our DEIS comments a set of spreadsheets and discussion of current and historical TNF budget from former Alaska Region economist and forest economics consultant Joe Mehrkens. Exh. 202, Mehrkens, J. 2012. Mehrkens' review of the documents provided in response to the FOIA request showed that continued reliance on 1990s \$101/MBF cost estimate was unreasonable.

Then, for the first time in more than two decades, the TNF "reviewed" average NEPA, Sale Preparation, Contract Administration and Engineering Support costs based on a "snapshot" review of fiscal years 2010, 2011 and 2012. PR 1594. The TNF limited its review to the NFTM budget line item and to engineering support under the CMRD budget line item and used agency estimates rather than actual Region 10 expenditures. *Id.*; Exh. 239. After years of inflation, the total costs were revised just slightly upwards – from \$101/MBF to \$103/MBF. These estimates are impossible for a number of reasons.

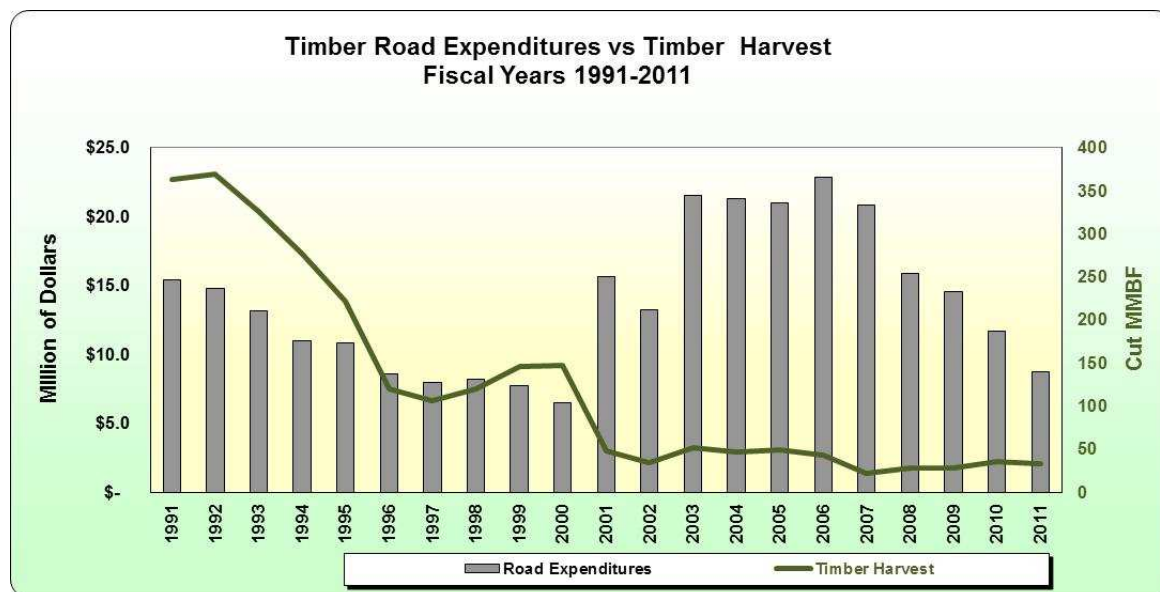
**i. The TLMP Amendment and BTP NEPA Analysis Failed to Disclose Public Transportation Costs Incurred to Subsidize Old Growth Logging**



The TNF has failed to demonstrate the reliability of its cost assessment methodology or verify the hypotheses underlying its methodology (to the extent that a one page document is a “methodology”). First, our scoping and DEIS comments requested that NEPA analysis provide information regarding the costs of logging road construction and maintenance borne by public works road contracting and other sources. Neither the DEIS nor FEIS disclosed these significant public costs. The cost disclosures should include the estimated cost of building, reconstructing and maintaining roads as an administrative cost rather than a logging cost. The FEIS states that “engineering support consists of planning and timber sale contract administration activities associated with new facility and road construction, use of existing facilities and road maintenance” and discloses a public cost of \$3.5 million for the selected alternative (prior to modification in the ROD). FEIS at 3-36.

This estimate excludes numerous road building, road reconstruction and maintenance that is perpetuated from both past and new timber sales. But in actuality, taxpayers bear a significant portion of road-related costs and there are additional, undisclosed road construction, reconstruction and pre- and post-haul maintenance costs – at a national level, logging roads typically consume well over half of national forest system road costs. Exh. 201 at 15 (69%). Nearly every large timber sale has involved significant public expenditures for road-related purposes. TWS TLMP Appeal, Exh. C. 2008. Administrative appeals of the 2008 TLMP amendment provided examples of pre-roads sales based on actual contracts issued and solicitations for bids on road construction contracts. TNF has repeatedly required taxpayers to fund logging road construction over the past decade. *Id.* From 2002 – 2006 taxpayers paid \$5 million to build logging roads associated with VLC’s timber projects. *Id.* Taxpayer funding also provides support for ongoing maintenance, reconstruction and reconditioning for BTP project area roads used by timber operators. PR 1250. As shown in Figure 3, public road expenditures are far disproportionate to timber harvest levels:

Figure 3



There are numerous other problems with the exclusion of logging road costs from the TNF’s cost assessment documents. The FEIS identifies also provides further road cost information in its analysis of timber sale purchaser road costs of nearly \$8 million for Alternative 3. FEIS at 3-30. PL 105-277 requires the FS to use timber sale contracts to accomplish required work rather than appropriated funds and limits investment for existing roads included in timber sales to repair of unacceptable environmental impacts, BMPs,



correction of unsafe conditions and work that cannot be accomplished with prehaul maintenance. Alaska Region. 2012. But the TNF has also recently received considerable appropriations outside of its capital road maintenance budget. In 2009 and 2010 the TNF spent 13.2 million in American Reinvestment and Recovery funds. [FY 2009 and 2010 TNF Tracking Summary]. In 2011, the TNF spent 43.6 million in federal highway funds. [FY 2011. TNF Tracking Summary]. The TNF also plans to spend in excess of \$3 million dollars from its Capital Improvement and Maintenance Roads (CMRD) budget category on road reconstruction for “second growth management” in southern Tongass areas with ongoing old-growth timber sales and no commercially viable second-growth. Alaska Region. 2012.

Our DEIS comments requested that further NEPA analysis provide detailed information regarding how the TNF spent this money and disclose costs associated with awards for new road construction to support this project. We also requested a summary of the individual annual maintenance plans for roads used in the project area for the BTP and for recent timber sales, FSH 2509.22; BMP 14.20 Road Maintenance, showing the extent to which a timber sale purchaser would bear the costs of maintenance and summarizing how individual maintenance plans done for roads associated with the recent Logjam project allocated these costs such as through a cost-sharing arrangement. We requested that the NEPA analysis discuss what determinations were made with regard to the commensurate share of timber purchasers, the Forest Service and other commercial users *Id.* The Alaska Region also has a purchaser election option which allocates funds to timber sale purchasers for some projects and requested that the NEPA analysis discuss this option and disclose whether or not the Region 10 allocates funds for this purpose. *Id.* Finally, we requested that the NEPA analysis disclose all pre-haul maintenance that has been or is being done in the project area.

The TNF’s response on one hand denied that the agency funds road construction associated with this project, and then on the other hand the record shows that the TNF uses separate service contracts to do road maintenance, reconditioning and infrastructure work and that Forest road funds are “spent on National Forest System roads for the purpose of construction and maintenance.” FEIS, Appx. B at B-114, 117; PR 2233 at 40-41 (the TNF has recently awarded a contract for 25 miles of road storage work in the BTP project area; the TNF will use public timber sale revenues from the stewardship contracts to store or decommission roads, meaning that timber sale proceeds go right back to subsidize the timber sale purchaser by default; the TNF will continue to maintain, grade, recondition, replace drainage structures and other work through separate service contracts to “maintain the existing infrastructure for National Forest Management activities.”).

In sum, the NEPA analysis throughout project development failed to account for significant public road construction costs associated with this project. The FEIS disclosed only the cost of engineering support (design and location of logging roads) and thus arbitrarily excluded the substantial total costs of road construction, reconstruction and maintenance. See Exh. 239.

**ii. The BTP’s Cost Disclosures Are Inaccurate Even Without the Road Subsidy Due to Inflation and Overhead Costs**

The BTP’s cost disclosures, even without including the cost of road construction, reconstruction and maintenance, are still inaccurate. From FY 2010-2012, the average total unit cost was still \$938/MBF for the timber program. Exh. 239 at 9. The TLMP/BTP unit costs, which are nearly identical, remain at approximately 1990 levels despite several decades of inflation. *Id.* The BTP FEIS also excludes substantial overhead costs which have historically been included in GAO audits and ranged from 16 – 63% of costs for timber sale preparation, administration and engineering support. Exh. 239 at 11. At a national level,

timber program related general administration costs ranged between 58 and 70% of the Forest Service budget during the past decade. Exh. 201 at 15. For FY 2010-2012, the overhead costs for NFTM and CMRD budget line items for timber preparation, administration and engineering support were 39% for the Region 10 office and 31% for the TNF. Exh. 239 at 11.

**iii. The NEPA Analysis Arbitrarily Excluded Post-Project Costs**

The NEPA analysis also discounted the significant public cost of mitigating and ameliorating habitat damage caused by this project and associated road construction. The cost-benefit analysis needs to reflect agency and public costs and cost disclosures of this project should reflect post-project costs likely to be incurred to mitigate damage from clearcut logging. As pointed out in a recent study, “taxpayers are essentially asked to pay several times to subsidize the degradation of our natural resources; initially to create the damage by logging, then to mitigate those damages, and last, to repair the damages from logging.” Exh. 201. Thus, on a national basis, roughly 60% of total inventory and vegetative management planning costs reflect timber management. *Id.* at 15. Region 10’s recent appeal decision for the Tonka project explained that mitigation efforts are for the purpose of addressing riparian habitat damaged prior to the implementation of TTRA buffers. Monahan, R. 2012. Thus, Region 10 is seeming to insist that BMPs will mitigate any further resource damage and that “there is no reason to believe there will be resource damage requiring repair or mitigation” resulting from post-TTRA projects such as Tonka or presumably the BTP. Monahan, R. 2012.

These assertions – and the exclusion of costs that would not exist but for the timber program – are unreasonable. The TTRA buffers did not prevent the TNF from constructing 155 red culverts in the project area. The TTRA buffers do not eliminate the considerable cost of repeated thinning treatments. The Forest Service spent over \$13 million in ARRA funds in two years on habitat amelioration and road decommissioning projects. The TNF has been spending \$680 per acre to address logging damage to wildlife habitat in the POW area. Exh. 203. At this price, the cost of mitigating damage from the clearcuts alone will exceed \$20 million. Yet the BTP’s cost assessment arbitrarily excluded realistic projections of post-project road maintenance costs and thinning costs based on actual expenditures and known budget shortfalls for culvert repair and road storage.

According to the planning record, the Thorne Bay Ranger District typically thins 2,000 acres per year and plans to conduct pre-commercial thinning on roughly 1,200 acres per year over the next decade. Big Thorne Project Area Future Pre-Commercial Thinning Treatments, 2/13/12. The projected cost is \$6,150,000 over the next decade at an average cost of \$500 per acre. *Id.* The thinning does not include just riparian and buffer stands as suggested in the Tonka appeal response; rather, it includes 3,850 acres in timber production LUDs. *Id.* There are roughly 17,000 unthinned acres in the Big Thorne area left from timber extraction activities occurring between 1971 and 2001. PR 1245. This project adds another 4,000 acres of clearcuts to that list; moreover, many of them will require additional expense to mitigate the loss of cedar. *See, e.g.* PR 2233. In sum, it was unreasonable to exclude these numerous – and expensive – post-project mitigation costs.

***b. Project-Specific NEPA Costs: The FEIS Failed to Respond to Comments<sup>15</sup> to Take a Hard Look at Thorne Bay Ranger District Costs, Contract Costs and Other Specific Appropriations***

Sales planning involves thousands of personnel days just to produce a project plan prior to initiating formal NEPA analysis. The FEIS and DEIS excluded “environmental analysis and documentation costs including field inventory, data analysis, public involvement and preparation of documents” necessary to comply with NEPA from its calculation of Forest Service costs. DEIS at 3-36, FEIS at 3-37. The explanation was that these are “sunk” costs that apply across all alternatives. *Id.* The DEIS disclosed that the Forest Service used an average cost of \$41 per MBF for these costs at the project proposal stage and that the estimated cost was \$2.5 million and the FEIS provided a cost of \$48/MBF but somehow the \$2.5 million cost was the same. *Id.* The \$41/48/MBF cost pertains to “environmental analysis and documentation ... used to determine feasibility at the project proposal stage.” DEIS at 3-36, FEIS at 3-37. These costs appear to be solely “Forest Service” costs. In either case, the disclosed figure - \$2.5 million - is impossible.

We disagree with the characterization of sunk costs. But in any event, the FEIS provided a misleading disclosure of these costs. The explanation and cost figure were unreasonable for several reasons: (1) the decision to specifically contract for NEPA preparation undermines the characterization of NEPA analysis as a “sunk cost” and (2) the TNF specifically developed a budget plan for the ten-year projects, including specific appropriations requests. This means that there is budget data available to estimate NEPA costs, and the TNF chose to ignore that data and instead relied on the unverified estimates from the 1990s.

Our DEIS comments requested that any further NEPA analysis address contractor costs, including the contract cost for both the 2008 TLMP Amendment and for this project and the inclusion of both contracts in the project planning record. 14 of the 18 preparers of the TLMP Amendment analysis were contractors. TLMP FEIS 4-1 – 4-5. 12 of those preparers were from Tetra Tech. *Id.* The TNF provided a “shadow” IDT of fourteen personnel. DEIS PR 0020 at 3. The TNF’s primary responsibility was to manage contracts and provide technical review. *Id.* at 3. Tetra Tech actually tracks costs and assign budgets. *Id.* at 26. In fact, Tetra Tech even sought contract modifications seeking additional funds to complete the analysis for the FEIS. PR 2259.

There is no indication that Vermilion’s update attempted to verify his NEPA cost estimates by factoring in the costs of using contractors to perform NEPA analysis and related tasks and add those costs to TNF costs in its disclosure of “sunk” or other NEPA costs. The ability of Tetra Tech to track costs means that there are actual cost figures available. Yet Vermilion failed to account for these figures in estimating TNF NEPA preparation costs or explain the TNF’s inability to track these costs by using procedures similar to Tetra Tech’s cost tracking methodology.

Finally, the FEIS failed to disclose legislative appropriations budget requests and outcomes that would enable the public and decisionmaker to adequately review the actual taxpayer subsidy required for this project. For example, previous Department of the Interior and Related Agencies Appropriations Acts specifically allocated additional funds to the

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<sup>15</sup> Additionally, we requested that the TNF explain its contracting procedures for this project but the FEIS did not respond with information showing that the NEPA contract for this case met applicable NEPA requirements for contractor prepared NEPA analyses nor did the TNF include the requested disclosures in the planning record. 40 C.F.R. § 1506.5(c).

Alaska Region's Forest Products heading "for purposes of preparing additional timber for sale, to establish a 3-year timber supply and such funds may be transferred to other appropriations accounts as necessary to maximize this accomplishment." [2008 TLMP FEIS, Appx. G at G-10]. The TNF also requested funding for State of Alaska employees to work on this project and failed to disclose that cost. [Tongass National Forest. 2008].

The TNF made specific budget requests for preliminary planning for this project based on estimates that it would need additional funds above normal appropriations for four years to perform NEPA planning and cover Region 10 and State of Alaska employees. TNF, 2008 at 7. The layout process would require additional funding. *Id.* In sum, the TNF has contract, appropriations and other cost figures available to verify reported cost disclosures but it instead provided and relied on misleading cost estimates for NEPA preparation.

### **c. Conclusion**

As the Forest Service acknowledges in its annual monitoring reports, it has no idea whether "the costs associated with carrying out the planned management prescriptions are consistent with the Forest Plan estimates." See, e.g. USDA Forest Service. 2011. Unaccounted for inflation since the time the \$101/MBF cost was valid has exceeded 60%. [Exh. 204]. The misleading disclosure of these costs in the 2008 TLMP and the FEIS and the TNF's inability to explain this inconsistency or support the agency's calculations with data violate NEPA. The underestimation of costs yields the same result as overinflated estimates of a project's economic benefits - it impairs a fair consideration of adverse environmental impacts by the decisionmaker and skews the public's evaluation of a project. *Hughes River Watershed Conservancy*, 81 F.3d at 446. We request that you rescind the ROD and FEIS, and request that the GAO or other appropriate office conduct an audit of the TNF timber program prior to any further development of this project so that the public can review the actual taxpayer subsidy necessary to fund the Tongass timber program.

## **2. The FEIS Failed to Meet Legal Requirements Under NEPA and NFMA to Assess External Environmental Costs**

Our scoping comments requested that the DEIS evaluate how implementation of this project will impose real costs, monetary and otherwise, on other forest values and give these values equal consideration. [40 C.F.R. § 1502.23; 42 U.S.C. § 4332(2)(B)]. NEPA documents need to assess the "relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity" for other users of forest resources. [42 U.S.C. § 4332(2)(C)]. CEQ regulations require that a cost-benefit analysis "discuss the relationship between that analysis and any analyses of unquantified environmental impacts, values and amenities." [40 C.F.R. § 1502.23]. The Forest Service need not necessarily monetize these considerations but must include them where relevant and important to a decision. [40 C.F.R. § 1502.23]. The NFMA imposes similar requirements - timber economic analyses need to incorporate costs to other resource and resource values, including long-term non-market value costs. FSH 2409.18; 36 C.F.R. § 219.12. The requirement to consider all forest resources on an equal basis was in part to offset the Forest Service's institutional bias in favor of timber production.

The FEIS arbitrarily failed to carefully balance the costs to other resource users with the factors used to measure the benefits to the timber industry. The Forest Service has recognized that these factors merit scrutiny in project planning. The national website identifies ecosystem services as an important issue that the Forest Service should consider in project planning: "[w]hen our forests are undervalued, they are increasingly susceptible to development pressures and conversion. Recognizing forest ecosystems as natural assets

with economic and social value can help promote conservation and more responsible decision making.” <http://www.fs.fed.us/ecosystemservices/>. Tongass National Forest scientists and experts have also recognized that ceasing all harvesting would increase carbon storage value in the Tongass. They noted that this benefit “may be amplified by indirect benefits of eliminating harvesting, such as maintenance of the southeast Alaska fisheries and tourism industries and reduced expenses for the Tongass timber program.” Leighty, W.S. et al.2006.

But this FEIS measured economic impacts solely in terms of bid values and logging costs and annualized timber jobs. FEIS at 3-34 – 3-35. Neither the analysis of the economic efficiency of the project nor the discussion of the impacts of various alternatives acknowledged the real economic costs associated with declining fishery and wildlife populations in the project area. Instead, the FEIS stated that the no-action alternative “would not support any direct annualized jobs.” *Id.* at 3-38. The presentation of the information in the FEIS deprived the public of the opportunity to adequately consider subsistence resources, recreational values and fishery values and whether the substantial public investment necessary to maintain the Forest Service’s timber program warrants risking other resource values.

The FEIS needed to consider all non-timber-related economics and number of jobs supported by forested habitat remaining in the area in the economics analysis section of the EIS including: recreation, tourism, hunting, fishing and subsistence. The analysis of economic impacts entirely ignores these costs. Intensive timber management imposes real costs on fish and wildlife resources and is an added cost of the program. The timber bias was most evident in the economic analysis of the no-action alternative. The FEIS failed to consider the monetary benefits of intact habitat for commercial fish species and for the numerous commercial recreational activities associated with wildlife. This analysis provided the illusion that it would be an economic loss if this project never happened. FEIS at 3-37 – 3-38. When the economic analysis fails to consider external costs, monetized or not, it misrepresents the true value of resources used to produce the timber. This was misleading and failed to account for the tangible economic and ecological benefits of the no-action alternative – more salmon would spawn, more deer winter range would be preserved and more visitors would be likely to return for remote recreation experiences unspoiled by disturbances associated with industrial-scale forest removals.

In previous timber project comments and in our administrative appeal of the 2008 TLMP amendment, we repeatedly emphasized that these values needed to be incorporated. We provided numerous means of quantifying non-commodity and other values that have been applied by resource economists and federal agency economists. These options include the travel cost and contingent use methods of valuing recreation and input/output models used by the Forest Service to estimate the effects of agency actions on income and employment. Loomis, J.B. et al. 2000. Other values such as fisheries and subsistence resources are easily quantified by calculating watershed production and value per fish by fishery ex-vessel values and guided angler willingness to pay formulas or by calculating the value of subsistence resources by comparing prices of substitute protein products.

The FEIS was fundamentally flawed because it failed to adequately consider impacts to all non-timber-related economies of the area in the economics analysis section of the EIS including: recreation, tourism, hunting, fishing, subsistence and future access to high value timber resources for small operators. By undervaluing other forest resources, the TNF provided a skewed analysis that, among other flaws, falsely tilted the economic calculus in favor of timber production to the detriment of other multiple use values. In the following subsections we list the economic benefits provided by forest resources occurring within the project area that should have been evaluated as part of a fully informed decision. The

analysis in the 2008 TLMP similarly failed to measure ecosystem services and cannot be used to excuse the failure to assign monetary values to project area fishery resources, recreation resources and subsistence resources<sup>16</sup> when such value could reasonably be assigned. 36 C.F.R. § 219.12(g)(3)(ii).

**a. The FEIS Misrepresented Impacts to Fisheries Economies**

The FEIS entirely ignored project level analysis of economic impacts to fisheries – it provides the unsupported assumption that there will be “minor” and “short-term” effects to fish habitat. FEIS at 3-353. It also failed to fully consider the relative values of productive watersheds within the project area relative to local communities as well as the entire region. In 2011, commercial salmon fisheries in Southeast Alaska were worth \$203 million in terms of ex-vessel value, meaning that this figure does not include processing jobs, transportation jobs and other ripple effects. [ADF & G. 2011]. Given the maintenance backlog, cumulative harvest levels, acid rock drainage and the increased road construction and the concentration of cutting units around streams, this project will have real and immediate impacts on the productivity of salmon streams in the project area. See, e.g. Declaration of Jon Rhodes.

**b. The FEIS Failed to Adequately Discuss Impacts to Recreation Economies**

The FEIS failed to adequately consider timber harvesting activities impact the recreation economy. The FEIS notes that timber harvest activities would be readily apparent in the vicinity of key project area recreation places but concludes that action alternative impacts would be short-term, temporary disruptions, that access to fishing and hunting activities would remain consistent, and that action alternatives would not contribute to long-term changes in project area recreation use. FEIS at 3-467-3-474. It failed to address the extent to which the quality of the experience is important to ensuring that visitors return year after year. Further, a significant portion of visitor expenditures becomes direct income to business owners and workers in recreation-related industries (e.g. gas stations, grocery stores, outfitters). Visitors spend income in the local area to replenish inventories or to purchase consumer services. These indirect effects generate income throughout the community.

The FEIS disclosed that nature-based tourism generated more than \$30 million in gross revenues to Prince of Wales Island in 2007 – mostly from sport fishing. FEIS at 3-454. But it failed to consider how the project will affect the recreation economy because of the flawed assumption that the project will not reduce the fish and wildlife populations that drive the recreation economy. The NEPA analysis failed to consider that the recreation economy is more important than the timber industry in terms of the regional economy or evaluate the negative impacts of the BTP on the potential for long-term economic sustainability and growth. In 2004, over 100 businesses, including 17 Alaska businesses, addressed Congress pertaining to the outdoor recreation industry’s concerns about logging in southeast Alaska:

While the timber industry in Southeast Alaska continues a sharp decline ... the recreation and visitor industry continues to grow. Using Forest Service data, a 1997 comparison between the value of logging Tongass old-growth forest and recreation and tourism use of these lands showed that tourism was nine times more valuable than logging. By 2000, recreation and tourism on the Tongass contributed 30 times the value of clearcutting the forest. These are particularly interesting facts when considering that the failing Tongass timber program cost taxpayers \$35 million in subsidies that same year. The estimated number of summer visitors to Southeast Alaska slightly more than doubled between 1993 and 2001, increasing from

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<sup>16</sup> See Part III (Deer, wolves and subsistence) *infra* for discussion of impacts to subsistence resources. The FEIS arbitrarily failed to monetize the value of wild foods to southeast Alaska despite readily available data on protein costs and the amount of wild foods harvested by subsistence users.

502,800 in 1993 to 1,010,352 in 2001. Clearly, trees left standing for recreation and tourism contribute substantially more than logging to Southeast Alaska's long-term economy. [Outdoor Industry. 2004].

**c. Conclusion**

The failure to assess ecosystem values is a major deficiency and resulted in a biased evaluation that ignored important economic contributions made by natural ecosystems. This deficiency resulted in an incomplete understanding of the impacts of the proposed project.

**3. Conclusion: The FEIS Failed to Conduct Adequate Multiple Use Balancing Because of the Flawed Cost Benefit Analysis**

We request that you rescind this FEIS and ROD due to the grossly underestimated disclosures of actual program and project costs. Further, the FEIS did not reflect a sincere effort to measure the negative impacts of industrial timber extraction on other economic sectors and instead arbitrarily ignored these impacts under the false assumption that BMPs would mitigate resource damage

**B. The DEIS Failed to Provide an Adequate Assessment of the Economic Impacts of Alaska Region Export Policies and Other Socio-economic Impacts of the BTP**

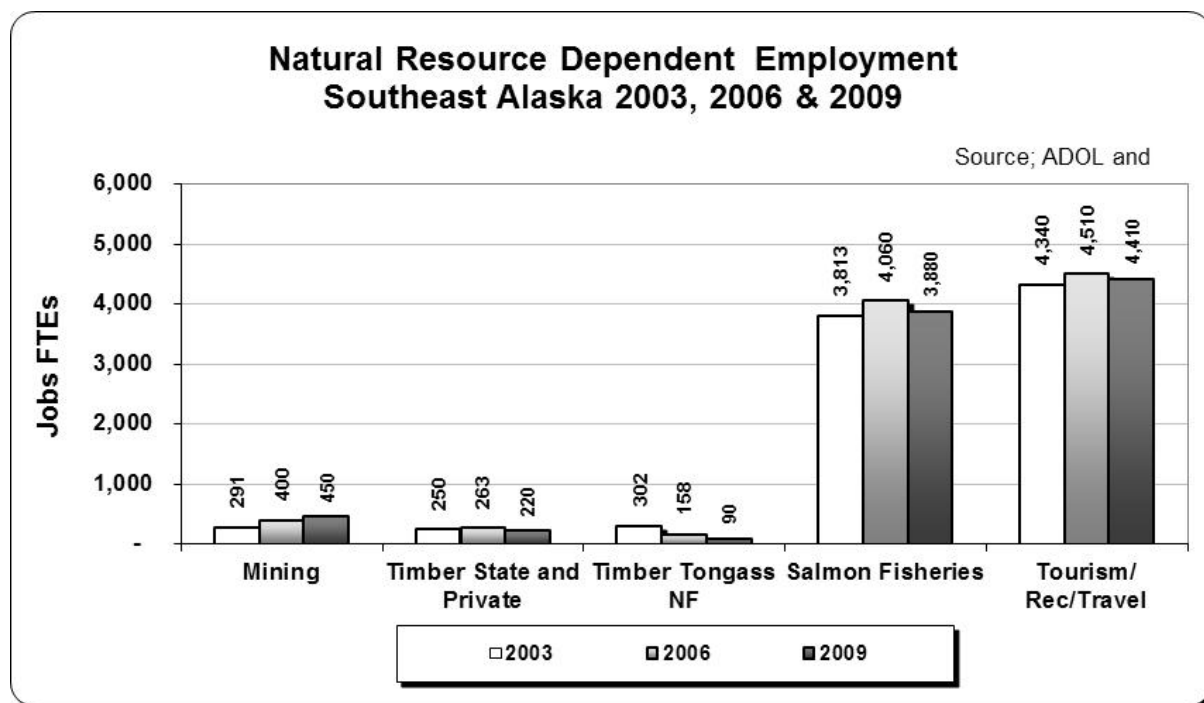
The errors in the DEIS cost-benefit analysis are compounded by the failure to accurately assess the ability of the current timber sale program to have beneficial economic impacts. The objectives for the BTP include supporting diverse opportunities for resource uses and wide ranges of natural resource employment opportunities. [FEIS at 1-5]. The FEIS arbitrarily asserts that the broader affected environment is "Southeast Alaska, because this is the area that could be potentially affected by changes in timber supply" and asserts that southeast Alaska communities depend on public forests "in various ways, including employment in the wood products ... sector[]."

But the BTP then provides for a large-scale, export driven project under the misguided assumption that the TNF's timber sale program could somehow contribute to these objectives. The NEPA analysis failed to evaluate the possibility that the POW area is in the process of a gradual recovery from the boom and bust cycle created by the timber program and assess the extent to which this project will impede that recovery by damaging ecosystem values for the primary benefit of foreign mills.

Over the past decade, the area has redefined its economy around small proprietorships in specialty wood mills, fishing and seafood and hospitality businesses. Exh. 206. Population levels have rebounded over the past five years. *Id.* Overall, total employment in the region has increased despite a sharp decline in forest products employment. Tilley, J. 2009. Figure 4 shows the magnitude of each resource industry in the region's economy. Given the small contribution by the timber industry one would assume more timber program funds (now losses) would be reallocated to projects that benefit the commercial fishing and tourism industries.



Figure 4



In addressing the implications of income and employment trends, resource economists have pointed out that timber projects such as this are entirely misguided: “the ability of forest policy to impact the regional economy via the timber sector will be small.” Crone, L. 2005. Timber is not likely to be a contributor to future socioeconomic well-being in the area. Based on regional, national and international economic and demographic trends, the Alexander Archipelago forests will be more valuable for tourism and recreation opportunities and for the unique natural amenities and ecosystem values that both attract tourists and enhance the quality of life for existing and potential residents, are likely to be of more importance to the economic vitality of the region. *Id.* In light of these values, our scoping and DEIS comments requested that the TNF re-evaluate the multiple negative impacts of Alaska Region export policies which drive the large volume sale component of the BTP.

**1. The ROD and FEIS Violate NEPA, NFMA and the APA by Authorizing a Timber Project Pursuant to an Unlawful Export Policy and by Failing to Evaluate The Impacts of Raw Log Exports**

Because the TNF’s justification for this project relies primarily on local economic benefits, raw log exports and interstate shipments were an important issue with regard to the economic analysis for this project. In our scoping and DEIS comments, we requested an evaluation of whether it would make more sense to parcel out the Forest Service’s planned removals of its old growth forest inventory at higher values over an extended period of time rather than export these forests as raw logs now at an unsustainably high rate in order to feed non-local mills.

***a. The Export Policies Applicable to the BTP Rely on an Unreasonable Interpretation of Statutory and Regulatory Raw Log Export Restrictions and Violate the APA and NFMA***

The FEIS acknowledges that the 2007 limited interstate shipment policy, expanded in November of 2009, allows for export of 50 percent of total sawlog volume applied to spruce and hemlock sawlogs and that timber purchasers may also export red cedar and yellow cedar. [FEIS at 3-32]. The FEIS explains that the policy “will remain in place for calendar year 2013” because of housing market slumps and low wood product prices. [Id]. Because the TNF unlawfully eviscerated the existing regulatory restriction on export policy without providing adequate notice and public comment, the FEIS and ROD violated the APA by proceeding with an export-driven project and utilizing a foreign market appraisal to calculate pond log values under an unlawful “policy” that in actuality rescinds and replaces the existing regulation. 5 U.S.C. § 553(b).

The FEIS arbitrarily assumes that 100% export or 50% export is consistent with the TLMP, the Forest Service’s enabling statutory authority and the exceptions to applicable federal regulations that prohibit the export or shipment of raw logs. [16 U.S.C. §§ 473-475, 477-482, 551; 36 C.F.R. § 223.201.]. Federal regulations require a separate approval process for exports and interstate shipments because the timber sales from public lands are for “local use” and the restrictions on interstate shipments and foreign exports are “necessary to ensure the development and continued existence of adequate wood processing capacity in Alaska.” [16 U.S.C. §§ 473-475, 477-482, 551; 36 C.F.R. § 223.201].

It is our view that the BTP cannot proceed concurrently with an export policy that arbitrarily conflicts with the purpose of the Organic Administration Act and the Forest Service’s local processing regulations for Alaska. In the beginning of the timber sale program on public lands, in 1897, Congress directed the Forest Service to sell timber only for local use. [16 U.S.C. §§ 473-475, 477-482, Lane, C.L. 1998]. Local use actually meant in-state use as Congress even prohibited interstate exports. [Lane, C.L. 1998]. This prohibition included territorial Alaska. In 1898, Congress explicitly required local use of timber sold from public lands in Alaska. [Id.]. In 1926, the Forest feared that log exports would lead to the result discussed in the previous subsection - that log exports would lead to fewer job and market opportunities in Alaska. [Id.]. Then Secretary of Agriculture W.M. Jardine authorized Chief Forester William Greeley to regulate log exports from Alaska. [Id.]. Greeley’s primary concern was with ensuring a supply of spruce and western hemlock for the development of local processing capacity.” [Id.].

In 1946, the Forest Service first codified the regulations for log exports from Alaska that prohibited raw log exports “without prior consent of the Regional Forester” and listed factors to guide the consent determination. [Id.]. A modified form of the 1946 regulation, found at 36 C.F.R. § 223.201, remains in effect and prohibits raw log exports and interstate shipments of spruce and hemlock. The purpose of the export and interstate shipment ban is “necessary to ensure the development and continued existence of adequate wood processing capacity in Alaska for the sustained utilization of timber from the National Forests which are geographically from other processing facilities.” [36 C.F.R. § 223.201].

The regulations provide five factors for the Regional Forester to consider in determining whether or not to approve exports. One of the factors is a national emergency and another factor pertains to the salvage of timber damaged by some sort of stochastic event. [36 C.F.R. § 223.201(c), (e)]. A third factor allows raw log exports to prevent the “serious deterioration of logs unsalable locally because of an unforeseen loss of market.” [36 C.F.R. § 223.201(b)]. The primary two regulatory justifications clearly reflect the understanding that export should occur only when it is surplus to local needs:

- “[p]ermit more complete utilization on areas being logged primarily for local manufacture”
- [b]ring into use a minor species of little importance to local industrial development ....” [36 C.F.R. § 223.201(a), (c)].

The overwhelming majority of export permit applications approved by the Forest Service previously cited these two factors as reasons why the agency should approve the application. [USDA Forest Service. 2001-2005]. Region 10’s Appeal Reviewing Officer recently explained that the TNF has carved out a new and separate exception to the regulation based on its provision for “other things” outside of the listed exceptions. Monahan, R. 2012. The TNF’s rationale for this post hoc exception is that liberalized export policy is necessary to preserve local manufacturing due to “limited domestic market opportunities.” [*Id.*]. The FEIS repeats this error and asserts that the export policy is based on the “other things” exemption and arbitrarily cites “current market conditions and local industry interests and opportunities to market or process material domestically.” FEIS, Appx. B at B-69.

This is an unreasonable interpretation of the regulation and in fact expressly undermines the regulatory policy of restricting exports because the restrictions are for the express purpose of protecting local processing capacity. Therefore, the policy is neither an interpretation of the regulation nor a general statement of policy but instead is an illegally promulgated rule. It is impossible to say that the Forest Service intends to log BTP primarily for local manufacture when its policy combined with the cedar export authority ensures that at least more than half the timber will not be used for local saw timber or wood products. As a result, the Alaska Region’s interstate shipment and export policies do not reflect a reasonable interpretation of its regulations and violate the Organic Administration Act’s local use requirements. In fact, as shown in the following sections, the export policy has caused the precise result that the regulation sought to prohibit – a weakening of domestic processing capacity.

Further, the decision to proceed with a large, export-driven timber project also violates NFMA, which requires that uses of National Forest System lands be consistent with the land management plan. 16 U.S.C. §1604(i). TLMP standards and guidelines require the Forest Service to manage wood products for “quality sawtimber material and other merchantable wood products” and “[r]equire utilization and optimum feasible use of wood material” and “[p]romote the use of wood for its highest value product commensurate with present and anticipated supply and demand.” [2008 TLMP at 4-74]. Under the ROD, all of the timber removed from recovering forests (“Young-Growth”), all of the yellow cedar, all of the red cedar and 50 MMBF of spruce and hemlock can and likely will leave Alaska without any primary processing. Thus, when accounting for the 17.5 MMBF left to rot in the woods, a mere third of the project sawlog volume is meant for local processing.

***b. The DEIS and FEIS Failed to Evaluate How Export Policy Affects Local Manufacturing Employment and Provided a Misleading Range of Employment Figures in Violation of NEPA***

Our scoping and DEIS comments requested an accurate assessment of the number of jobs and revenue associated with this project based on actual utilization data from previous years. We further requested that the DEIS rely on quality data for its employment projections rather than unsupported assumptions about potential utilization rates. But the FEIS arbitrarily failed to correct the assessment of the number of jobs and the amount of revenue the project will generate in the region. In fact, the ROD arbitrarily inflated the mill

employment numbers beyond those generated by FAST-R without providing supporting data for alleged increase in jobs.

The FEIS neither recognized nor correctly portrayed the TNF's limited ability to create or maintain local processing capacity. In particular, it did not provide an accurate assessment of job and income generation based on a realistic analysis of exports and interstate shipments of raw logs out of the region. This information was important so that the public could evaluate whether the project would fulfill the stated purpose and need for the project. The FEIS instead inflated the employment figures by relying on inaccurate data, unexplained assumptions and outdated reports particularly with regard to processing capacity and location. This reliance on inaccurate or misleading economic information impaired the consideration of adverse environmental effects. *NRDC*, 421 F.3d at 811.

Cole's decision projected that the BTP would generate 297 logging jobs, between 154 and 348 sawmill jobs and 119 – 149 transportation related jobs. ROD at 36. The employment estimates assumed a range from maximum possible out of state shipment (50% of hemlock and spruce and export of all of yellow cedar) to no shipment of hemlock and spruce and export of 50% of Alaska yellow cedar. ROD at 39. The FEIS asserts that "action alternatives would contribute to a long-term supply of timber for the wood products industry in southeast Alaska." FEIS at 3-35. The FEIS asserted that the employment estimates reflected approximate numbers based on average jobs per MMBF ratios that were estimated based on harvest and employment data from 2007 to 2010. FEIS at 3-35-36. These assertions are unreasonable and not only lack supporting data, but actually conflict with actual mill employment in light of updates to the export policy and actual export levels.

**i. The ROD and FEIS Violated NEPA by Providing Misleading Local Employment Estimates**

The ROD table that displays projected employment mischaracterized the total annualized jobs and income by suggesting an upper range without providing any supporting data to support the assumption that there would be no export of hemlock, spruce and red cedar and 50% local processing of yellow cedar. ROD at 3-36. The FEIS provides a maximum range of 348 sawmill jobs generated by 154.8 MMBF of sawlogs while the ROD also provides a maximum range of 348 sawmill jobs generated by 131.4 MMBF of sawlogs. FEIS at 3-36; ROD at 36. Both figures are highly misleading.

The first error is that the BTP uses the wrong sawmill multiplier in the first place by arbitrarily adding in indirect and induced jobs which is contrary to the findings of Region 10's own economists. Exh. 239 at 12 – 14. The planning record suggests that "sawmilling results in 2.68 annualized jobs per MMBF of net sawlog volume harvested from the [TNF] based on 2007 through 2010 employment data. Alexander, S. 2012. Employment Coefficients and Indirect Effects, for NEPA planning: 2012 Update (as reported in Alexander and Parrent 2010, 2012). When excluding indirect and induced jobs, the correct multipliers are 1.68 mill jobs/MMBF and 1.8 logging jobs/MMBF. *Id.* Thus, the maximum range of mill and logging jobs generated by the old-growth sawlog volume authorized in the ROD – if all of it were process locally – would be at least a third less than the 645 job maximum range suggested in the ROD. ROD at 36.

The second error is that the ROD and FEIS mill job range estimates rely on flawed assumptions about exports and interstate shipments. The FEIS mill job estimate for Alternative 3 of 348 annualized mill jobs relies on flawed data generated by FASTR, which assumes 100% yellow cedar export and full local processing of the remaining 129.8 MMBF of old-growth sawlogs. ROD at 3-35; FEIS at 3-36 n. 2. The FEIS insists that purchasers "have

the choice” to process all the timber but “are likely to export as much as they can” and just process enough timber locally to keep the mill open. [FEIS at 3-35].

The ROD compounds these errors by claiming that the Forest Supervisor’s selected alternative will generate 348 jobs. This is impossible. Under the FASTR methodology, the ROD alternative could generate at most 290 jobs – that is, 108.2 MMBF processed locally. But the ROD first asserts that regional sawmills “often manufacture [yellow cedar] into high value lumber” and provides a maximum range based on no shipment of hemlock and Sitka spruce and export of 50% of yellow cedar, but provides no data to support this assumption. ROD at 39.<sup>17</sup> According to the TNF’s Regional Economist, FASTR does not make the assumption about 50% yellow cedar, meaning that the ROD numbers were not generated by FASTR, but rather unilaterally generated by the Forest Supervisor in the ROD. E-mail from Susan Alexander, April 3, 2012. Even with 50% local processing of yellow cedar, the ROD alternative would not generate 300 mill jobs, meaning that the ROD assumed no export of yellow cedar at all, and no export of the 15 MMBF of young growth even though the agency’s own methodology assumes 100% export of young growth because southeast Alaska does not have “a feasible market for sawn young growth.” FEIS at 3-36, n. 2. Yet there is no record, as there should be, to show why the FEIS and ROD numbers do not match. Alexander e-mail, April 3, 2012.

The FEIS and ROD thus inflate potential mill employment opportunities substantially based on the improbable chance that more volume will go to local mills. The cause of the overestimates is the “uncertainty” over how much spruce and hemlock would be exported and the incorrect assumption that the 18 MMBF of red cedar would receive local processing. The FEIS explained that “it is not possible to accurately predict what will be manufactured locally; hence, a range of employment and income figures is considered the most reasonable approach to display potential effects on jobs and income.” FEIS, Appx. B at B-10. The FEIS developed this range using FASTR, which:

calculates an upper and lower estimate, based on two scenarios because it is impossible to predict the amount of timber that may be exported from a given timber harvest contract. Most years it will neither be all domestically processed nor up to the maximum exported. Information on the amount of volume exported from 2001 to 2011 is located on the Alaska Regional Office website ... and shows a range of 2.7 MMBF to 19.5 MMBF. The upper estimate value assumes that all project volume is processed locally with the exception of Alaska yellow-cedar and young growth of any species. The lower estimate value assumes that 50% of the total sawlog volume in hemlock and spruce are exported, as well as all of the Alaska yellow-cedar and young growth. Appx. B at B-11.

This explanation was unsatisfactory and ignores the agency’s own data. For example, the FEIS assumed local processing of red cedar. FEIS at 3-35. Agency experts have explicitly assumed that all yellow cedar would go to foreign markets as raw logs and all red cedar would go to the lower 48. Housely, R. 2007. Forest Service data on export permits and in cut and sold reports support this assumption – from 2003 through 2007, the agency authorized the export of over 38 MMBF of red and yellow cedar out of the 49 MMBF sold. TNF Cut and Sold Reports. In 2011, VLC held export permits for 5.3 MMBF of red cedar. PR 1525, Table A-4. It seems logical to infer that the 29 MMBF that VLC cut in 2010 accounted for a significant portion of the 2011 raw log export of 16 MMBF. USDA. 2011. Further, as shown

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<sup>17</sup> The ROD’s calculations are impossible, and assume that all yellow cedar, and all young growth would be processed locally ( $131.4 \times 2.68 = 352$  annualized jobs).

in the next section, the export/harvest ratios for 2009 through 2011 under Region 10's export policies were 52%, 37% and 54%, respectively. This means that the high end of the mill employment range for the ROD should have reflected primary processing of 69 MMBF (63% of sawlog volume, minus yellow cedar), or 115 mill jobs, and the low end should be based on primary processing of approximately a mere half of the sawlog volume, or roughly 97 mill jobs. Or, to put it another way (see *infra* Table II.1), the TNF generates roughly 3 mill and logging jobs per MMBF under the export policies – or 348 jobs, or barely more than half of the 645 mill and logging job estimate provided in the ROD. Thus, because of the flawed assumptions underlying the job multipliers and export, the ROD and FEIS grossly exaggerated the range of local employment.

***ii. The FEIS Failed to Assess How Increased Export Authority Reduces Local Manufacturing Capacity and Failed to Assess the Value Disparity Between Export and Local Processing, and Program Life-Cycle Economic Effects***

The primary data that is relevant to employment projections pertains to export rates under the ongoing limited interstate shipment policy authorization for foreign export appraisals. The FEIS failed to consider that TNF timber sales data shows that the unlawful relaxation of local processing requirements has diminished local utilization of timber. Nearly half the TNF timber leaves Alaska as raw logs under the Region 10 policy. There are several different ways to measure the significance of export policies to timber management on the Tongass. The most readily available data allows for comparisons between actual exports and cut volumes. It is true that timber operators may purchase a timber sale one year, cut some of the timber the next year, apply for the export permit during the year of purchase or in another year and actually export the timber several years after the initial purchase. [USDA Forest Service. 2006]. But there are only two large timber sale purchasers on the Tongass – Alcan Products LLP and Viking Lumber and so existing data from the past four years fairly accurately depicts the timber markets utilized by these businesses.

The data shows that southeast Alaska is experiencing a declining ratio of mill jobs concurrently with the implementation of Region 10's policies that progressively encourage increasing amounts of raw log exports. In general, large sale purchasers have exported nearly all the cedar and half the hemlock and spruce sawlogs since the Alaska Region liberalized its L48 policy in 2008 and 2009. In particular, the table displays an increased export rate after the Alaska Region expanded its export policy to include foreign markets. The table below displays export volumes based on Forest Service cut and sold and export data and displays the proportional reduction in mill jobs to logging jobs and overall reduction in forest product jobs per mbf since the 2009 market addendum to the export policy. Large sales are those purchased for more than \$10,000 under the supportable assumption that micro-sales purchasers do not export statistically significant amounts of raw logs.

**TABLE II.1: ALASKA LOSES MILL JOBS UNDER ILLEGAL EXPORT POLICIES**

	Cut MMBF	Logging Jobs	Mill Jobs	Logging Job to Mill Job Ratio	Mill Jobs /MMBF	Forest Product Jobs/MMBF	Raw Log Exports	Large Sale % exported
2007	28	44	70	.6 / 1	2.5	4	3.6	21%
2008	28	52	70	.7 / 1	2.5	4	5.8	21%
2009	36	48	39	1.2 / 1	1.1	2.4	13.7	52%

2010	32.6	61	46	1.3 / 1	1.4	3.3	12.9	37%
2011	35.4	62	47	1.3/1	1.3	3.0	16	54%

At a 54% export rate, it is not reasonable to imply that this project could generate more mill jobs than logging jobs as indicated in the ROD. Rather, the FEIS should have, but did not consider how its export policies will actually reduce local processing capacity and employment associated with the BTP project.

The FEIS further failed to support its underlying employment and utilization assumptions with an assessment or mill utilization rates for different tree species with export or transshipment levels and display the value disparity between the TNF's export program and timber processed by small mills. Typically, nearly half the value of Tongass timber projects derives from cedar. The amount of cedar sold between 2001 and 2005 was less than 20% of the volume of spruce and hemlock during the same time period but the stumpage values were similar: \$3.3 million for the spruce and hemlock and \$2.8 million for the cedar. [http://www.fs.fed.us/r10/ro/policy-reports/for\_mgmt/index.shtml]. Because cedar comprises a higher percentage of this sale, it likely that raw log exports will account for more than half of the stumpage value for this project. The ROD extracts over 30 MMBF of cedar – more than one quarter of the total sales volume. ROD at 35. Therefore, the disclosure of data regarding the respective values of tree species utilized locally versus those exported or transshipped without primary processing was important so that the public can assess how much of the public investment in this project will be returned to the regional economy.

Further, the FEIS failed to address how large scale export-driven projects designed for cedar exports will affect the remaining smaller timber operators who can produce a higher ratio of value-added products at a much lower environmental cost. Oral testimony from one small mill owner during the recent TLMP amendment process explained that “I’ve been running a small sawmill for about 18-20 years up here and I’m pretty much against exporting any of the logs ... I’m just more into high value added in the state of Alaska. I think it would provide a lot more jobs.” [Cabe, R. 2007]. Other regional small mill owners have explicitly advocated that for a cessation of shipments of unprocessed logs out of state because the Forest Service’s current implementation depletes the region’s “log savings account” by supplying manufacturers elsewhere with high value products, compromising Southeast Alaska’s future timber needs. [Jackson, L. 2007; Peterson, K. 2005].

As described in the previous sections, liberalized export policies have reduced mill jobs and steadily increased interstate shipment and export rates. This type of export program has historical precedent. In the early 1970s, large timber operators in the Pacific Northwest began to sell their logs in the raw to Japan. [Brown, B. 1982]. The economic context was remarkably similar to the situation on the Tongass as foreign purchasers could pay at least twice what independent mills could afford. [Id.]. By 1978, exports were a third of the regional business. [Id.].

Journalist Bruce Brown explained the predictable result of liberalized export policies:

[A]ttractions for the timber companies in the export business have been the reduction in payroll resulting from the fact that the timber is not processed in the United States, and the elimination of their weaker and smaller competitors. Congress Don Bonker, whose Southwest Washington district boasts Weyerhaeuser as its largest landowner, observed: “the fact is that small mills are shutting down in the Northwest, and part of the reason is log exports. When we export logs we also export jobs.” The



predictions of the Pacific Northwest Forest and Range Experimental Station regarding declining timber harvests and forests products employment are being borne out. More than a dozen Oregon sawmills closed in 1978 and 1979, bringing unemployment to thousands and economic hardship to communities ... . [Id.].

The FEIS arbitrarily failed to evaluate the impact of export policy in the project area in terms of long-term timber availability to smaller mills and in terms of Congress' concern with "fair competition within the southeast Alaska timber industry." TTRA, Title III., Section 301, Contract Modifications.

#### ***e. Conclusion***

The FEIS failed vastly overstated the importance of the timber economy relative to diverse natural resource employment objectives. Further, it failed to accurately evaluate the comparative values and employment figures associated with its export policy. And finally, the TNF is implementing this project pursuant to an unlawful reversal of export restriction regulations designed to protect local processing capacity.

#### ***C. The DEIS Relies on Arbitrary Demand Scenarios that Violate NEPA and the TTRA***

In our administrative appeal of the 2008 TLMP amendment, we requested a correction of the economic studies and scenarios regarding timber production and demand on the Tongass. Our scoping and DEIS comments also requested that the BTP NEPA analysis include a review of previous models and scenarios used to evaluate timber demand from public lands on the Tongass. The TNF has used the Morse methodology from 2000 to the present and has consistently overestimated the need for more timber sales. The program continues to reflect scenarios that required some form of market recovery from long-term declines that began in the 1970s. Brackley et al. 2006. There is no reasonable basis to support the assumption of a market recovery for Tongass timber outside of the Forest Service's illegal inflation of market demand through its raw log export policy.

The Forest Service has consistently offered more timber for sale than operators purchased, and operators cancelled numerous timber contracts. From 1997 - 2007, there was a huge disparity ("fall-down") between offered and sold timber sales - over 45% of the offerings over the past decade failed to attract a single bid and 23% of timber sold ended up in cancelled sales. Exh. 239 at 14. The Morse methodology and Brackley scenarios have never come close to predicting actual timber volume purchases and have overestimated real demand for 60% for over a decade. [Exh. 202; Mehrkens, 2012]. Appendix A identifies future annualized demand projections but fails to disclose how projections under the Morse methodology compare to what was offered or sold over the last seven years. As shown in the table below, the Forest Service has consistently calculated offering levels far in excess of what is cut or sold:

year	Offering under Morse formula	Cut	sold
2003	151	48.1	37
2004	153	49.2	87
2005	143	46.6	65
2006	143	43.	85
2007	116	18.7	32
2008	124	28.	5

2009		28	23 <sup>18</sup>
2010	173	36	46
2011	110	32.6	44
2012	81	20.8	
2013	143		

These figures reflect the only realistic scenario for Tongass timber: a historical and ongoing declining demand scenario. In 2009, Cole acknowledged that “there continues to be a downward trend in the timber markets” that resulted in decline in value during the short time in between the development of the Logjam Timber Sale DEIS and the ROD. Logjam ROD at R-5. Shortly thereafter, in 2011, there was yet another sharp downturn in timber markets. FEIS Appx. at A-8. This downturn followed 16 consecutive quarters of declining wood product prices. PR 1204. Global sawlog prices have dropped for five consecutive quarters are at the lowest price since 2010. Exh. 207. Even the rationale for the export policy extension was based on an April 2012 briefing paper which explains that because of economic conditions associated with housing market slumps and low wood product prices, domestic markets for Alaska timber remain poor. FEIS at 3-32.

Yet despite the low cut and sold volumes and know market conditions, the TNF’s demand projections continue to assume that southeast Alaska timber operators will be competitive and maintain historic market shares. Therefore, the BTP tiers and utilizes an ongoing programmatic failure to provide a realistic assessment of timber markets and demand for timber from the Tongass National Forest. The BTP FEIS assumes that market demand has attained Brackley’s “expanded lumber scenario” which estimates a demand of nearly 100 MMBF for 2013 and increasing by nearly 10 MMBF per year until 2020. FEIS, Appx. at A-7. These most recent projections, based on hypothetical scenarios developed by Brackley et al. (2006), imagine a competitive Tongass timber industry that can retain past market shares and have never been tested against explicit demand determinants such real price and cost data. The Brackley scenarios thus reflect outdated, unsupported assumptions that ignore actual pricing and cost trends.

Further, the very starting point of the 2000 Morse methodology is mill capacity. But the TNF has failed to recognize a persistent a long-term decline in installed and operable mill capacity, which has declined from 453 MMBF in 2002 to 155 MMBF in 2010. Even more importantly, mill utilization rate of the installed mill capacity has been less than 11% since 2002. Exh. 239 at 15. Recent Alaska Region forest management reports show that the mill capacity used in the methodology exceeds the amount of locally sawn lumber by a factor of seven. More specifically, VLC has a listed capacity of 80 MMBF itself but it mills one-sixth of that amount.

Neither the FEIS nor the TLMP analysis it tiers to provide a reasonable explanation for the projections. The relevant NEPA analyses, including the BTP FEIS, have failed to disclose the flaws with the TNF’s market demand models including the long-term inaccuracy of the projections, the reliance on untested assumptions and the exclusion of relevant factors such as global market prices. The NEPA analyses have also failed to explain the specific factors considered in setting the projected offering levels, the data relied on to justify those different elements of the methodology, or information on whether it had followed agency guidance for updating information found in the methodology.

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<sup>18</sup> Sold volumes for 2009 – 2011 are exaggerated as they include “optional volume” that timber purchasers do not necessarily use or pay for. PR 1525, Table A-3 n. 2.

In sum, the procedures used to determine the “market demand” for this project do not constitute a methodology that responds to the TTRA’s exhortation to “seek to meet market demand.” Rather, the procedures merely are an artificial demand rationalization for a hoped for result rather than a methodology designed to yield accurate results.

#### **D. Timber/Vegetation Silviculture**

This project responds to the flawed economic assumptions discussed in the previous sections by implementing huge clearcuts in the midst of an already degraded landscape. The FEIS entirely failed to assess the impacts of clearcutting, the spatial arrangement of clearcuts and clearcut unit sizes, on wildlife habitat in the project area in violation of NFMA and NEPA. Further, the FEIS did not adequately address uncertainties about cedar decline, regeneration or other important aspects of forest structure in a changing climate. Overall, the Timber and Vegetation section failed to meet NEPA’s mandate to ensure that information provide “[a]ccurate scientific analysis” or “be of high quality” or identify areas of significant uncertainty. [40 C.F.R. § 1500.1(b); § 1500.2; § 1500.9(a)].

##### **1. The FEIS Failed to Provide an Adequate Justification for Clearcutting and Clearcut Sizes**

The selected alternative authorized clearcutting on 3,763 acres and places many of these clearcut units adjacent to each other. ROD at 35, Appx. 1 at 6. Previous entries have clearcut large blocks of forest to the detriment of old-growth dependent wildlife species and fishery habitat. Our scoping and DEIS comments requested alternatives that rely on light-touch partial cutting prescriptions that fully address wildlife and watershed concerns. If there were to be clearcuts, we requested a detailed explanation of the reasons for doing so, and full evaluation of the consequences as required by law. Cole’s decision authorized clearcuts on 3,763 acres, ROD at 35, based on timber economic considerations but did not reflect the required assessment of the effects of clearcutting on other forest resources.

##### **a. The FEIS Failed to Closely Examine the Effects of Clearcutting on Other Forest Resources and Instead Simply Relied on Timber-Economic Development Rationales**

Our scoping and DEIS comments requested an analysis that responds to the legal restrictions on clearcutting. Economic considerations alone do not justify clearcut prescriptions. 16 U.S.C. § 1604(g)(3)(E)(iv). NFMA requires that clearcuts occur “in a manner consistent with the protection of soil, watershed, fish, wildlife, recreation, esthetic resources, and the regeneration of the timber resource.” 16 U.S.C. § 1604(g)(3)(F)(i), (v). Courts have interpreted these provisions to mean that clearcutting is only acceptable in “exceptional circumstances” or, at a minimum, the Forest Service “must proceed cautiously in implementing an even-aged management alternative and only after a close examination of the effects that such management will have on other forest resources.” *Sierra Club v. Thomas*, 105 F.3d 248 (6<sup>th</sup> Cir. 1997); *Sierra Club v. Espy*, 38 F.3d 792, 799 (5<sup>th</sup> Cir. 1994). The TLMP further requires that clearcuts are to be planned “in such a way that isolated stands of timber will not be created.” TLMP at 4-71.

Thus, any decision to proceed with clearcuts needed to consider and appropriately balance the following impacts: (1) creation of young-growth forests that are poor habitat for wildlife and understory plant species; (2) reduction of plant biodiversity; (3) diminishment of old growth stand structural components; (4) reduction of slope stability, increased landslide activity and accelerated erosion and sediment production leading to degraded fish habitat. McClellan et al 2004. In particular, concerns with wildlife and small mammals in the project area point to the need for alternatives that provide extensive consideration of prescriptions

that retain more than 50% of stand basal area to protect small mammal habitat needs. Tongass Conservation Strategy Review Workshop. However, the ROD and FEIS failed to adequately consider other forest resources, in violation of NFMA and NEPA by failing to take a “hard look” at the intensity of project area clearcuts and by failing to candidly disclose the risks posed by the project.

The justifications provided for the clearcut prescriptions were (1) to control dwarf mistletoe and disease; (2) to minimize windthrow and logging damage risks and (3) to create favorable regeneration. ROD, Appx. 1 at 4. As the ROD concedes, the BTP entails placing numerous clearcuts adjacent to each other. *Id.* at 6. The unit cards and BTP project maps also show that the new clearcuts are adjacent to numerous recent clearcuts with stands between 15 and 50 years old – all now, or soon to be, unsuitable habitat for wildlife. *See, e.g. id.* at 19 – 565 (old-growth units). The FEIS and ROD prescriptions thus failed to adequately consider the effects of clearcutting on other forest resources or provide a reasonable justification for clearcutting; indeed, the flawed implementation of legacy structure for this project was done in a manner that creates “isolated stands of timber” on a landscape scale throughout the BTP matrix. The justification instead relied on encyclopedic ratings of unit-specific risks that neither demonstrate “exceptional circumstances” nor reflect a “close examination” of effects on other forest resources. FEIS at 3-415-3-417.

Windthrow risks do not justify the choice to add nearly four thousand acres of clearcuts to this already heavily fragmented project area. Indeed, the direct effects analysis contemplates only windthrow risks within the unit and states the obvious: if all large trees within a unit are removed, there is nothing left to blow down. PR 2233 at 49. But outside the cutting unit, the FEIS acknowledges that timber harvest will “exacerbate the rate of windthrow in adjacent stands” and notes that in the Big Thorne area, “high windthrow hazard was generally found in areas with ... adjacent logging.” FEIS at 3-416-417. A review of POW clearcuts provided as an exhibit to TLMP appeal no. \_\_\_\_ showed that there were “many examples of continuing blowdown along the margins of clearcuts. The forest exposed along the edge of a new cut contains many trees that have not been ‘trained’ by windstress from early growth stages” resulting in the frequent loss of tall, valuable trees. Carstensen, R. & B. Christensen, 2005 at 53. The unit cards for this project verify the concern that implementation of project area clearcuts will exacerbate rather than ameliorate blowdown risks as many of the largest clearcuts occur in areas of high windthrow risk, and use a new, experimental technique of using “legacy” structure as a buffer between clearcut units. *See, e.g.* ROD Appx. 1, Unit Cards 119, 127 and 140-143. This was a significant analytical deficiency with respect to windthrow risks - the Forest Service’s own Pacific Northwest Research Station has previously explained that there is a “significant risk” that the legacy structure used as a buffer between clearcut units will not endure in the long-term because of windthrow risks. TLMP AR 1592; Appeal no. at 64.

The windthrow rationale is also particularly disturbing in light of both the realized and projected climate change impacts. The FEIS arbitrarily relies on future management measures such as thinning treatments to address increased windthrow risks, and thus evades the duty under NEPA to assess these risks before project implementation. FEIS, Appx. B at B-83. It failed to disclose or discuss the reality that wind disturbances require appropriate management measures now in this project area rather than “adaptive management” later, after storm damage has already occurred. Alaska scientists have found that storm frequency and intensity increased concurrently with an abrupt rise in Alaska coastal temperature during the last 40 years, with a more than two-fold increase in the number of days with gale force winds. Weller and Anderson, 1998 at 27, 36. Thus, “[t]he dramatic increase in gale wind in coastal Alaska since the 1970s suggests that the risk of windthrow of trees will be much greater.” *Id.* at 38-39.

Further, using dwarf mistletoe as an excuse to proceed with clearcutting is not an “exceptional circumstance” that justifies the decision to implement intensive clearcutting in the project area. Dwarf mistletoe is not a disease, but rather is native to and an important ecological component of southeast Alaska’s forests that plays a role in nutrient cycling, influences stand structure, and provides nest sites and food sources for wildlife. Further, “[s]ubstantial reductions to timber are only associated with very high disease levels.” Sheets, R.M., 2009. Logjam Timber Sale DEIS, Timber and Vegetation Resource Report. Thorne Bay Ranger District, Tongass National Forest. Prince of Wales, Alaska at 10. The majority of the BTP units were rated low for dwarf mistletoe. PR 2233. Further, only high disease levels substantially reduce timber production and can be addressed through partial cutting of highly infected stands, yet there were a mere 80 acres of partial cutting prescriptions implemented to address dwarf mistletoe. *Id.* The primary reason that dwarf mistletoe is a problem for the TNF is not that it is a disease that harms trees, but rather that it produces low quality timber and slows growth rates. This is simply an economic justification disguised as a forest health issue and cannot justify the decision to proceed with clearcutting. Finally, as discussed in more detail in the following section pertaining to red and yellow cedar, the assumptions about regeneration in the FEIS were flawed and also fail to support the clearcutting prescriptions.

In sum, the BTP FEIS failed to evaluate the effects of clearcutting on forest wildlife, fish and other resources. This failure is particularly egregious with regard to the BTP because the spatial and temporal arrangement of existing previously clearcut stands. Thus, the ROD and FEIS failed to establish a reasonable justification for proceeding with clearcutting. The justifications provided were excuses; the main reason for the clearcut prescriptions instead appears to be to “give the greatest dollar return on the greatest unit output of timber” and violated NFMA.

***b. The FEIS Failed to Acknowledge the Risk of Exceeding the 100 acre Clearcut Size Limit or Disclose the Number of “Potential Openings”***

NFMA regulations establish a 100 acre size limit for clearcut openings but the 2008 TLMP Amendment carves out an exception for when a larger unit “will produce a more desirable contribution of benefits.” 2008 TLMP at 4-72. This entails a multi-factor test prior to increasing clearcut size beyond the 100 acre maximum that includes effect on wildlife and fish habitat and effects on water quality and quantity. *Id.* The ROD insists that there are no openings that exceed 100 acres even though, in fact, there are numerous “potential contiguous even-aged openings” in excess of 100 acres. ROD, Appx 1 at 5; PR 2192. The FEIS failed to disclose that multiple adjoining clearcuts or clearcut units artificially separated by legacy structure will indeed create openings in excess of 100 acres. FEIS at 3-421. The FEIS violated NFMA and NEPA because it failed to evaluate the impacts of these large openings on wildlife, fish habitat and watersheds and utterly failed to implement the few forest structure retention requirements, such as they are, that the TLMP required for wildlife in matrix lands.

This failure was significant because the BTP proposes multiple clearcuts that are either immediately adjacent to another new clearcut unit or abut previous clearcuts to create multiple contiguous openings of in excess of 100 acres. The FEIS ignored windthrow risks and buffer blowdowns in assuming that it could implement new units so close together without exceeding Forest Plan size limits. *Cf.* Appx. B at B-77 (relying on 1994 guidance from studies outside of Southeast Alaska to support flawed assumptions about windthrow risks); PR 2241 (Mickelson, G. (all the buffers along the road blow down). If cutting unit density is so high in project area VCU that new units must abut the old ones – as is the case – it was unreasonable add de facto openings in excess of 100 acres in project area

VCUs. The FEIS failed to show that the TNF considered impacts to wildlife and fish habitat or provide site-specific analysis of any wildlife or watershed values implicated in the decision to exceed the limit. Worse, the TNF subverted the intent of the “Legacy Forest Structure” guidelines in order to circumvent the TLMP’s 100 acre clearcut size limitation.

**i. The Legacy Guidelines Rely on and Tier to Unlawful TLMP Standards and Analyses and the FEIS Failed to Disclose Responsible Scientific Opinion Opposing Its Use on POW**

Our DEIS comments requested that further NEPA analysis consider specific forest retention prescriptions that exceed the TLMP legacy structure guideline. The scientific reviews of forest structure retention in matrix lands that were included in the 2008 TLMP Amendment planning record made clear that the TNF had a NEPA obligation in the BTP FEIS to disclose, evaluate and respond to a scientific consensus that increased forest structure retention was critical for wildlife in heavily modified landscapes such as the BTP project area. The BTP includes 7 VCUs that require implementation of the legacy standard and guideline which applies where habitat degradation resulting from previous clearcuts is already so intensive that the area does not provide for a full range of matrix functions. FEIS at 3-420. We explained in our TLMP appeal that there is no scientific support for the legacy acreage threshold and prescribed retention levels. The primary reason for adopting legacy was to improve timber economics.

The BTP FEIS states that “legacy benefits wildlife” but fails to disclose the substantial body of scientific opposition to the standard that particularly pertains to its application in the project area. FEIS, Appx. B at B-78. In our administrative appeal of the 2008 TLMP we emphasized that the TNF arbitrarily rescinded species-specific wildlife protections applicable to heavily fragmented landscapes such as the BTP project area VCUs and replaced them with the Legacy standard despite substantial scientific opposition. Expert scientist comments in the TLMP planning record, including ADF & G, the Fish and Wildlife Service and the Forest Service’s own Pacific Northwest Research Station science review team, agreed that the OGR system was inadequate for conservation of a range of species including goshawks, marten and flying squirrels and that the TNF needed to improve management of matrix areas to compensate for risks to specific island populations. TLMP appeal no. 08-13-00-0029 at 58-59.

Instead, the TNF adopted a 30% retention standard under the assumption that it would adequately provide for wildlife in an average clearcut unit size of 20 acres despite the lack of a scientific assessment to support its assumption and expert agency comments indicating that 30% retention levels are equivalent to clearcuts in terms of value to wildlife and would not be used during the winter. *Id.* at 61-63. Indeed, the Forest Service’s science review team identified numerous problems with the new standard: (1) “implementation of the Legacy standard appears to be unrelated to the specific habitat components for wildlife needed to satisfy their life history needs”; (2) “[t]he general non-explicit nature of the application of certain prescriptions raises uncertainty about the effectiveness of those prescriptions in achieving the stated or presumed wildlife objectives” and (3) based on McClellan’s 2000 studies, there is long-term risk that legacy will blow down due to low retention levels and thus not achieve wildlife objectives. *Id.* at 61-64; TLMP Record # 1592.

Thus, the BTP ROD and FEIS arbitrary assumption that the legacy guidelines adequately protect wildlife habitat needs for connectivity, foraging and nesting in heavily altered landscapes was misplaced, and violated NEPA.

**ii. The BTP ROD and FEIS Unlawfully Used the Legacy Standard to Circumvent NFMA's 100 Acre Opening Size Requirement and Failed to Meet the Objectives of the Legacy Standard**

The BTP FEIS and ROD fulfill the science review team's prophecy that the lack of clear guidance in the legacy guidelines would lead to application problems that would be ineffective in achieving wildlife objectives. See PR 2192 (areas selected for legacy "may or may not be optimum solutions for legacy placement"); PR 2233 at 30 (plan language was "unclear" but "seemed" to anticipate placement as clumps). First, the implementation of legacy structure for the most part ignored wildlife needs entirely. In some cases legacy structure served non-wildlife resource needs such as scenery and botany. PR 2192. In many cases legacy structure implementation reflected timber economic needs – frequently unsuitable soil areas were used for legacy and in others, legacy implementation simply reflected low timber values or difficult operational logistics. ROD, Appx. 1, Unit Cards 147, 148, 191-193, 469-470. Even worse, the ROD unit cards utilized legacy to create an artificial boundaries between clearcut units which together form contiguous openings in excess of 100 acres – for all practical purposes, treating legacy as a leave strip between clearcuts rather than as a forest structure retention measure for wildlife. See, e.g. PR 2192; ROD Appx. 1.<sup>19</sup>

Indeed, the unit cards in Appendix 1 to the ROD<sup>20</sup> reveal a shocking number of 100 plus acre "potential openings" and habitual misuse of the legacy guideline:

- (1) units 80 – 83 form a 158 acre opening divided by legacy structure;
- (2) unit 119 creates a 130 acre opening reduced by 45 acres of "Legacy D" structure (implemented for purposes other than wildlife needs);
- (3) unit 127 creates a massive opening when combined with unit 128 and the 1997 clearcut in between the two units;<sup>21</sup>
- (4) units 138 and 139 form a 147 acre opening where legacy was placed in between the units to reduce unit size;
- (5) units 140 – 143 combine to form a 256 acre opening where legacy was used to reduce unit size;
- (6) units 147 and 148 form a 102 acre opening where legacy was used to meet visual quality objectives and to reflect timber operational logistics and weed out low value timber; and

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<sup>19</sup> The IDT Team and resource specialists, in implementing the artificial boundaries, clearly recognized that adjoining clearcut units were openings in excess of 100 acres. In referring to smaller units, the silviculture report explained that "the intent of legacy would be defeated in cases where multiple units less than 20 acres adjoin and create a single opening exceeding 20 acres. To address this concern the planning team elected to base legacy requirements on the potential opening created by the combination of adjoining units." By implication, this also means that where multiple units less than 100 acres adjoin and create a single opening exceeding 100 acres, the opening is a de facto single clearcut. PR 2233 at 30.

<sup>20</sup> See also PR 2192 (explaining, among other things, "Legacy D" and other odd applications of legacy structure.

<sup>21</sup> The unit card for Unit 28 explains that adjacent harvest areas have not met the 5 foot regeneration requirement but fails to explain where the TLMP allows for the TNF to exclude state lands from its opening size requirements.



(7) units 191- 193 and 469-470 form a 217 acre opening where legacy was used to circumvent the 100 acre limit, to address botany concerns and timber operational logistics and to weed out low value timber.

The opening size problems with these units are further exacerbated by high windthrow risks in the majority of the units. ROD, Appx. 1, Unit cards 119, 127, 140-143, 191-193, 469-470. Additionally, many of these massive openings involved trees with low timber values and high levels of defect, indicating that many stands were being clearcut for prospective economic value. On the other hand, most of the 100 acre “plus” openings provide what little winter deer and deep snow marten habitat remains in the midst of numerous surrounding recent clearcuts.

The intent of the guideline was to ensure “sufficient residual trees, snags and clumps of trees remain *in* timber harvest units” and “well inside the unit.” TLMP at 4-90. “Legacy forest structure should be arranged primarily in clumps” and shall be representative of the existing old-growth stand characteristics” including some of the oldest, largest trees.” *Id.* But as discussed above, BTP planners placed legacy structure in between two units specifically for the purpose of circumventing the 100 acre opening limit, to meet other resource needs, or to meet timber economic objectives. ROD, Appx. 1, Unit Card 80. This means that there was actually no legacy structure within many units.

### **c. Conclusion**

The justification for clearcutting relied solely on timber economics concern and failed to show any evidence that the TNF considered wildlife and other forest resource values, in violation of NFMA and NEPA. Further, the BTP implements numerous clearcut units that create potential openings in excess of 100 acres without disclosing the existence of these openings or following the required procedures. The BTP failed to evaluate whether legacy structure met project area wildlife needs, in violation of NEPA, and compounded this error by using legacy for improper purposes, including the unlawful development of massive clearcut units. We reviewed the implementation of legacy structure for those clearcut units that de facto exceed the 100 acre limit and it is likely that forest structure retention requirements for wildlife were similarly ignored in other unit prescriptions. The 2008 TLMP ROD unlawfully removed species-specific matrix land protections and replaced them with legacy structure to improve timber economics, and now the TNF cannot even successfully implement its own de minimis approach to wildlife habitat in the matrix. This is a very serious error that implicates not only wildlife viability, but also the adequacy of regulatory mechanisms relevant to ESA listing decisions for flying squirrels and goshawks. We request that you rescind the ROD, FEIS and DEIS and instruct the Forest Supervisor to develop meaningful structure retention requirements prior to implementing any further clearcuts on POW.

## **2. The FEIS Failed to Provide an Adequate Evaluation of Yellow Cedar Decline and Impacts to Red Cedar**

Our scoping and DEIS comments requested that further NEPA analysis address cedar highgrading, consider yellow cedar decline and climate change, and provide information about regeneration in logged areas and in particular requested alternatives that avoid healthy yellow cedar stands. But the FEIS failed to provide enough information to assess the impacts of removing healthy yellow cedar trees and how this project fits in with biome-wide red cedar removals now that the Tongass functions as a refuge for this species.

The TNF has removed disproportionate amounts of cedar from the southern portion of the Alexander Archipelago in order to generate positive appraisal sales for decades with no end in sight. The FEIS references the Alaska Region’s ongoing work on yellow cedar decline but

fails to discuss or incorporate into the decision how that research identifies serious concerns pertaining to the cumulative impacts of continued massive removals of forest stands with a significant cedar components in the project area. 36 C.F.R. § 219.27; Exh. 215, Exh. 216, Exh. 217. In short, the FEIS failed to meet NEPA's mandate to insure that information provide "[a]ccurate scientific analysis" or be of "high quality" or identify areas of significant uncertainty. 40 C.F.R. §§ 1500.1(b); 1500.2, 9(a).

Our scoping and DEIS comments requested a detailed site-specific consideration of yellow-cedar decline - "one of the most widespread and important forest problems on the Tongass." 2008 TLMP FEIS at 3-120. There are 40,000 acres of yellow cedar decline in the TBRD - an increase of 5,500 acres from the 2004 survey and an increase of 1,500 acres in the last two years. FEIS at 3-418; Logjam FEIS at 3-158. The decline occurs in open canopies with moist soils. PR 2233 at 16. Recent research indicates that root freezing is the primary injury mechanism and the cause is exposure because of a reduced snow pack at low elevations caused by a warming climate. Hennon, P.E. et al. 2007. The volume of cedar removals authorized under the BTP poses significant additional risks.

The FEIS failed to separately discuss the cumulative impacts of logging and climate change cedar decline and disclose that those effects will lead to diminished populations in light of poor post-logging regeneration. [40 C.F.R. § 1508.25(c)(3)]. In fact, the ROD authorized clearcutting in one of the few healthy yellow cedar stands in one of the portions of the project area most heavily impacted by cedar decline. PR 2223 at 16; ROD, Appx. 1, Unit Card 47. It further did not candidly disclose the risks associated with removing healthy cedar stands such as how logging can exacerbate cedar decline through anthropogenic canopy gap formation that alters soil temperatures. D'Amore, D.V. & P.E. Hennon, 2006. Evaluation of soil saturation, soil chemistry and early spring and soil and air temperatures as risk factors in yellow cedar decline. USDA Forest Service, Pacific Northwest Research Station, Juneau, AK. Also, the Timber and Vegetation section's analysis does not even mention climate change despite widespread recognition that warming temperatures will have a substantial effect on future forest composition. See, e.g. *infra* Part I.\_

The FEIS also failed to discuss important components the Alaska Region's developing strategy for cedar conservation and how they are relevant to this project. For example, the silviculture report describes the planting and thinning strategy but entirely fails to discuss the value of maintaining healthy yellow cedar stands where they persist in the project area. Neither the FEIS nor the silviculture report mention that the Forest Service's own researchers recommend that yellow cedar harvest be shifted to dead yellow-cedar forests. Hennon, P.E., D.V. D'Amore, D.T. Wittwer & J.P. Caouette, 2007. Yellow Cedar Decline: Conserving a Climate Sensitive Species as Alaska Warms. Published in Deal, R.L., tech. ed. 2008. Integrated restoration of forested ecosystems to achieve multiresource benefits: proceedings of the 2007 national silviculture workshop. Gen. Tech. Rep. PNW-GTR-733. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 306 p. at 239. Because of the forest-wide significance of this issue and because of the extent of cedar decline in the project area, we requested that the TNF consider it carefully and develop alternatives that avoid taking healthy yellow cedar stands.

Finally, the assurances of adequate regeneration are questionable. The FEIS asserts that post-clearcut will "promote natural regeneration" that will be "representative of" the original species stand composition. FEIS at 3-422, -431. The FEIS simply assumes that measures designed to promote cedar regeneration can be implemented at some point in the future are "expected" to increase yellow and red cedar stand composition without disclosing the uncertainty surrounding those mitigation measures. FEIS at 3-418. This assumption was

misleading and failed to recognize actual changes in post-harvest species composition, identify barriers to regeneration and discuss recent research.

For example, project area species composition ranges somewhere between 21% red cedar and 9 % yellow cedar to 11% red cedar and 17% yellow cedar. DEIS at 3-405; FEIS at 3-414. The silviculture resource report indicates that yellow cedar comprises just one percent of young growth stands, and that there is an ongoing conversion to spruce. PR 2223 at 23-24. The FEIS indicates that yellow cedar represents between 3 and 15% of regenerated stands, and that red cedar composition has declined by at least half, depending on which of the inconsistent figures are used as a reference point. FEIS at 3-431. The Logjam FEIS indicated that post-timber extraction species compositions did change in regenerated, PCT-treated stands with an 80% decline in yellow cedar composition and large scale conversion to hemlock dominated forests. Logjam FEIS at 3-160. These figures simply do not support the statements in the FEIS. And even though the TNF hopes to adjust thinning prescriptions to favor cedar, the FEIS entirely fails consider or to disclose significant impact of deer browse on cedar or analyze the likelihood that deer browse will undermine the TNF's assumptions about future thinning treatments. Stroh, N., C. Baltzinger & J. Martin, 2007. Deer prevent western red cedar (*Thuja plicata*) regeneration in old-growth forest of Haida Gwaii: Is there a potential for recovery? *Forest Ecology and Management* 255 (2008) pp. 3873-3979.

The failure to discuss the updated research and explain the inconsistencies between the conclusions made in the FEIS violated NEPA by undermining the scientific integrity of the FEIS and depriving the public and decisionmaker "of the full range of responsible opinion on environmental effects." 40 C.F.R. §§ 1500.1(b); 1502.24; *Seattle Audubon Society v. Moseley*, 798 F.Supp. 1473, 1479 (W.D. Wash. 1992). The assumptions made about cedar regeneration needed to consider the Forest Service's own regeneration data, updated scientific research, and disclose that regeneration efforts are experimental and uncertain. See, e.g. *Friends of the Earth v. Hall*, 693 F.Supp. 904.

### **3. Highgrading and Intensity of Take: The FEIS Failed to Assess the Environmental Impacts of Concentrating Timber Sales on POW**

Our scoping and DEIS comments requested that the TNF analyze this project in light of continued highgrading. The cumulative impacts of this practice have long-term environmental impacts. This project continues a trend of establishing intensive timber development on the southern and central Tongass and was not adequately covered by NEPA analysis done pursuant to the 1997 TLMP revision or the 2008 Amendment. Those documents contemplated environmental impacts across the forest. The TNF explicitly planned to focus its timber sale program on POW, and the FEIS acknowledges that the TNF intends to concentrate its program in the southern Tongass. Exh. 231; Appx. B at B-96.

But the FEIS failed to discuss how the TNF intends to address the practice of highgrading high volume large tree old-growth forests that provide optimum fish habitat and winter carrying capacity for deer. The TTRA directed the Forest Service to "eliminate the practice of harvesting a disproportionate amount of old-growth timber ... so that the proportion of volume harvested in these classes within a contiguous management area does not exceed the proportion of volume currently represented by these classes within a management area." [TTRA, Title III., Section 301, Contract Modifications].

In *NRDC v. U.S. Forest Service*, the court noted that there had not been adequate analysis regarding the disproportionate harvest of high-volume old-growth. 421 F.3d at 815. Since the entirety of the Forest Service's timber sale program is on POW, this particular FEIS needed to consider the *NRDC* court's directives. Yet it failed to: (1) disclose the effect of continued

highgrading across POW forests and (2) whether or how to lessen the cumulative impact of the practice and (3) assess potential impacts of reasonably foreseeable future highgrading. *Id.*

The timber industry has already removed half or more of the class 7 stands in existence since 1950. Exh. 212. This project seems likely to remove a lot of high volume old growth in a biogeographic province where a third of the high-volume POG and nearly a third of the large-tree POG have been removed over the last half-century. TLMP FEIS at 3-162. Private landowners have removed three-quarters of the high-volume POG and 88% of the large-tree POG. *Id.* This province also once contained nearly half of the karst POG acreage within the Tongass National Forest and half of that has been removed from the province. *Id.* In the project area itself, 71% of past harvest has occurred in high volume strat even though the high volume strat comprises only 22% of project area forested lands. PR 2233 at 11. The BTP will extract as much as 22% of the remaining suitable old growth in the project area. FEIS at 3-412.

In light of these previous removals, the Timber and Vegetation section needed to consider highgrading at multiple scales and by different landownerships (including the Sealaska legislation) in light of remaining large-tree POG before project implementation and after project implementation. at multiple scales and consider state and private lands: (1) at the stand level in terms of past selections of large tree and high value species and future harvests of these species; (2) at the landscape scale and (3) at the biogeographic landscape scale.

#### **4. Conclusion**

The TNF needs to redo its NEPA analysis of timber and vegetation. The choice of clearcutting prescriptions needs to demonstrate that the TNF considered habitat values for wildlife in addition to naturally occurring fungi and diseases that limit optimum tree growth for future timber extraction. Finally, the discussion on cedar decline failed to discuss how this project fits within the recommendations of Alaska Region scientists and findings regarding regeneration of the species.

#### **E. The FEIS Failed to Analyze Stewardship Contracting Feasibility**

We request that you direct the Forest Supervisor to withdraw stewardship contracting options from the project. The TNF has never provided a NEPA analysis that evaluates the feasibility of stewardship contracting or discloses how the TNF plans to implement its stewardship authority. Programmatic analysis may show that it would be more cost-effective to emphasize road storage and decommissioning and red-pipe remediation through service contracts rather than to liquidate old-growth forests in order to fund perceived vegetative management needs; indeed, at a \$500 per acre minimum for pre-commercial thinning, it seems unlikely that using stewardship contracting for this project will generate enough funds to ameliorate habitat damage caused by the BTP itself.

Our scoping and DEIS comments requested a thorough analysis regarding the use of stewardship contracting. There have been significant cost-overruns on long-term, multi-year stewardship contracts, particularly those that rely on optimistic assumptions about prospective values for small diameter timber. We also have substantial concerns regarding the proposal to use large old-growth timber sales as a financing mechanism for second-growth logging under the stewardship contracting authority. This is a significant issue that merits NEPA analysis. A project that clearcuts at least four thousand acres and partially cuts a thousand more does not fit within the primary objectives of the enabling legislation and further violates NEPA as discussed below.

### **1. The FEIS Failed to Analyze Alternatives to Stewardship Contracting**

NEPA requires that the Forest Service “objectively evaluate all reasonable alternatives.” 40 C.F.R. § 1502.14(a). The TNF has not provided the public with any opportunities under NEPA to review alternatives to its stewardship contracting program and particularly with regard to how the stewardship authority fits within the large timber sale program. The authorization in the FEIS implies that the Forest Service does not have the money it needs to do vegetation management projects unless it liquidates old growth forests as a funding mechanism. Further, the stewardship contracting authority, particularly as used in this case, raises serious questions about the ability of the TNF to objectively evaluate alternatives that range from seeking congressional appropriations to downscaling or improving the cost-efficiency of efforts to clean up the mess left over from past mis-management.

The failure of the FEIS to consider alternative funding mechanisms was unreasonable. The 9<sup>th</sup> Circuit has recently held that environmental plaintiffs were likely to succeed on the merits in a NEPA claim based on the recognition that the Forest Service must consider alternatives to funding its programs through timber sales implemented with stewardship contracts. *Sierra Forest Legacy*, 577 F.3d at 1025 – 1027. In that case, as here, the Forest Service acknowledged that it wanted to cut large trees of importance to wildlife species in order to fund other activities. *Id.* at 1232. But the agency never considered funding alternatives in its SEIS or prior NEPA work.

For example, it seems entirely possible that the TNF may be able to fund habitat amelioration projects by diverting funds from the timber sale program. But there is no answer to that question because the FEIS never explored alternative funding mechanisms. *Id.* at 1232-33. The TNF also has numerous other options for funding its activities. But there was consideration of re-prioritizing other funding, using other appropriations authorities, requesting special appropriations or altering plans for future spending in the TBRD. In short, there was no consideration of alternatives that would allow for meaningful consideration of whether it is necessary to proceed with this project to finance other vegetation management objectives.

First, the TNF has shown that it can seek funds for other projects by requesting funds from Congress or by shifting existing budget priorities. The Forest Service has established or funded several entities that assist in budgetary requests. For example, in January and February of 2010, retired Deputy Forest Supervisor Olleke Rappe-Daniels directed existing TNF budget personnel to prepare educational materials for TFR members on the budget process. [Rappe-Daniels, O. 2010]. According to those presentations, many Forest Service programs under the Congressional budget process are discretionary and the Regional Forester has considerable leeway to adjust regional budgets. In 2010, the USDA began funding the Forest Products Industry Cluster (executed by JEDC). Its reports similarly indicate a capacity to shift funding for various biomass development projects, timber sale programs and legislative initiatives. Exh. 208.

Second, there are other existing appropriation authorities to meet the TNF’s other land management objectives. An agency contracting specialist has previously explained to managers involved with this project that there are alternative funding mechanisms under Interior Appropriations Acts that can still achieve local employment goals for habitat management projects. Exh. 209. The explanation pointed out significant difficulties with stewardship contracting in Alaska, including burdensome contracting processes, low timber values and problems with delegating management to other entities through long-term contracts. *Id.* A service contract authority is a preferable alternative because, based on 2006 – 2008 statistics, stewardship contracts incur a higher rate of objections and administrative

appeal than service contracts. Exh. 210. But neither the DEIS nor the FEIS considered these problems or alternative funding mechanisms.

Finally, the injection of the stewardship receipt option tainted the Forest Supervisor's ability to objectively consider the action alternatives. Judge Noonan recently described this issue in a concurring opinion in *Sierra Forest Legacy v. Rey*: "[t]he financial incentive of the Forest Service in implementing the forest plan is as operative, as tangible, and as troublesome as it would be if instead of an impartial agency decision the agency was the paid accomplice of the loggers." *Sierra Forest Legacy*, 577 F.3d at 1025 – 1027. For this reason, Judge Noonan questioned the agency's objectivity: "[c]an an agency which has announced its strong financial interest in the outcome proceed objectively? Could an umpire call balls and strikes objectively if he were paid for the strikes he called?" *Id.*

In sum, the FEIS authorized stewardship contracting for this project without providing an objective consideration of reasonable alternatives. The TNF should also disclose that it has a conflict of interest because of its desire to retain timber receipts for the purpose of "vegetative management" programs that primarily seek to stimulate tree growth for future timber production.

## **2. The DEIS Needs to Explain How Old-Growth Timber Sales Meet the Purposes of the Stewardship Statutes**

The Forest Service Handbook explains that "[d]eriving revenue from the sale of products designated for removal through stewardship contracting projects is a secondary objective to achieving land management goals." [FSH 2409.19, Ch. 60; Omnibus Consolidated Appropriations Act of FY 1999, § 347]. The proposal to implement stewardship contracting for this project is unreasonable because the primary purpose of this project is a large timber sale. Consequently, using these proceeds for secondary objectives does not reflect the land management goals provided for in the appropriations legislation that established the stewardship contracting authority. [Omnibus Consolidated Appropriations Act of FY 1999, § 347, as amended by § 323 of PL 108-7, 2003].

We have reviewed Government Accountability Office reports on stewardship contracting. It is clear that stewardship contracting is becoming a popular method of implementing timber sales, particularly in Rocky Mountain states. Exh. 210; Exh. 211. Based on our review, stewardship contracts typically involve small diameter timber and we are not aware of any stewardship project that involves old-growth removals on the scale authorized here. These studies reinforce our position that the Tongass National Forest has misinterpreted its authority under the relevant legislation.

## **3. The TNF Needs to Provide NEPA Analysis that Explains the Costs and Benefits of Stewardship Contracting**

An additional problem with injecting stewardship contracting into this project is that there is considerable uncertainty regarding the economic efficiency of these programs. The FEIS did not demonstrate a hard look at this known concern. For example, the FSH requires an annual review of stewardship contracting activities that tracks the value of the goods sold and the services received. [FSH 2409.19\_60]. One of the concerns the GAO has expressed with regard to stewardship contracting pertains to reliable data on goods and services. There may be appropriate uses of the stewardship contracting authority in the project area, but the FEIS did not provide enough information to evaluate specific circumstances.

The FEIS failed to estimate the net increases in physical outputs from stewardship contracting, such as the salmon produced, the deer produced and miles of trails constructed

or improved. It did not discuss how these net increases may result in increased consumer use – i.e. salmon consumed, deer consumed, wildlife watched and added recreational user days or estimate the life cycle benefit or unit costs for the outputs, such as the federal cost per deer consumed.

Finally, further NEPA analysis was necessary on the additional ground that the BTP requires analysis as both a connected and a cumulative action under the CEQ regulations. [40 C.F.R. 1508.25(a)(1), (2)]. According to the GAO's report, stewardship contracts typically involve vegetative management, meaning that proceeds from the BTP would fund continued silvicultural entries, associated road use and increased maintenance costs, and deferred road closures to accommodate contractors. The funding relationship also creates the interdependent relationship between future stewardship projects and this larger action necessary to trigger the connectivity prong of the regulation. Stewardship contracting also will cause habitat damage, and creates a bizarre cycle where forests must be sold to pay for vegetation management to ameliorate damage done during the previous cycle of timber sales.

#### **4. Conclusion**

In sum, the TNF failed to conduct any NEPA analysis prior to implementing stewardship contracting for this project. There are a number of alternatives to stewardship contracting. The Forest Service has a malleable budget and exists within a department that has discretionary funds.

#### **F. Conclusion**

The analysis of timber economics should be improved in a number of ways – it needs to account for export policy, account for the inefficiency of the large sale program and account for impacts to other valuable forest resources. Timber extraction from public lands provides but a small fraction of regional employment. The notion that this project could somehow fulfill the purpose and need of providing regional resource development opportunities is wholly undermined by the Forest Service's own recent sales data and export policy liberalization – even at increasing levels of export authorizations numerous recent sales have solicited no bids or solicited bids and been returned.

The lack of quality analysis, misleading information and failure to incorporate other economic sectors into the analysis violates NEPA. In a revised DEIS, please prepare an economic analysis that accurately depicts job generation, public costs and costs to other natural resource uses. As indicated above, there are numerous ways to quantify ecosystem services and requirements to discuss those values when they are not quantifiable. Without a hard look at these figures and values, an informed decision about the economic efficiency of this project is simply not possible. Clearcut logging has dramatically reduced numerous fish and wildlife populations throughout the coastal temperate rainforest biome. It is unreasonable for the Forest Service to ignore these impacts.

### **III: Watersheds, Fisheries & Transportation**

The Forest Service has recognized that cumulative effects of logging and roading on watersheds is a significant issue. The EIS breaks the watershed issue down into three components, each of which is evaluated through use of a surrogate indicator of significance. FEIS at 3-257. Changes in streamflow are measured by reference to watersheds with more than 20% of the basin area harvested from 1981 through project implementation. Increased sediment is measured by reference to existing and proposed miles and acres of road, and the



number of existing and new Class I – III stream crossings by watershed. Changes in stream habitat are measured by reference to the number of Class I and II stream crossings by watershed. *Id.* An additional important component is the issue of stream temperature, which is considered in the watershed section but not in fisheries. For some strange reason the FEIS analyzes the effects to fisheries separately from cumulative watershed effects. See FEIS at 3-337. Components of the fisheries section include large woody debris, RMAs, fish passage, and acid rock drainage. Other important aspects of watershed issues are evaluated separately in other sections, including soils & wetlands, transportation, and subsistence. Much of the critical analysis in each of these sections is contained in resources reports, and the road and unit cards.

As explained in Section I of this appeal, this sort of segmentation has the result that the analysis has the character of a puzzle still in the box, and it requires a huge amount of cross-referencing and independent analysis by the reader to piece it together into anything resembling an accurate picture.

Many of the objections described here are explained in detail in the attached Declaration of Jon Rhodes (Exhibit 300a), which is hereby adopted in full and incorporated into this appeal.

#### **A. EIS fails to use high quality information or address gaps in data**

NEPA requires a hard look at significant impacts, not just general statements. See Pacific Rivers Council v. US Forest Service, 668 F. 3d 609, 621 (9<sup>th</sup> Cir. 2012); Or. Natural Res. Council Fund v. Brong, 492 F.3d 1120, 1134 (9<sup>th</sup> Cir. 2007). Taking a hard look entails consideration of all foreseeable impacts. The analysis must contain a “reasonably thorough” discussion of significant aspects of probable environmental consequences, in a way that fosters informed decision-making and public participation. NRDC v. USFS 421 F.3d 797, 810 (9<sup>th</sup> Cir. 2005). Under established APA standards, the EIS is deficient and must be remanded when the agency entirely fails to consider an important factor of a problem, offers an explanation that runs counter to the evidence before the agency.

In requiring a ‘hard look’ and environmental consequences of proposed action, 40 CFR 1502.16, NEPA requires use of high quality information. 40 CFR §§ 1500.1(b), 1502.24. NEPA requires up-front disclosure of shortcomings in data or models. 40 CFR 1502.22; Lands Council v. USFS, 395 F.3d 1019, \*1032; (9<sup>th</sup> Cir. 2004).

Where information is incomplete or unavailable, the agency must always make clear that information is lacking. 40 CFR 1502.22. If the incomplete information is relevant and essential to a reasoned choice, and costs are not “exorbitant,” the information must be compiled and included. §1502.22(a). Under NEPA, a helpful scientific analysis must be performed where it is “reasonably possible.” See Pacific Rivers Council v. US Forest Service, 668 F. 3d 609, 624 (9<sup>th</sup> Cir. 2012). If the information is relevant, but costs to obtain it are exorbitant, the agency must include statements indicating this fact, the relevance of the missing information, a summary of existing relevant, credible, scientific evidence, and an evaluation of impacts based on a method that is “generally accepted in the scientific community.” §1502.22(b)(1) – (4).

Courts have held NEPA analysis inadequate where predictive models are used, without verifying their reliability with on-the-ground study. See Lands Council v. USFS, 395 F.3d 1019, \*1032 (9<sup>th</sup> Cir. 2004) (holding failure in watershed restoration plan to ground-check soil disturbance was fatal); Kettle Range Conservation Group v. United States Forest Serv., 148 F. Supp. 2d 1107, 1127 (E.D. Wash. 2001). In addition to the information quality requirements under NEPA, the Forest Service has a particular duty to use high quality

information about existing and proposed roads. See e.g. 36 CFR 212 (roads analysis, and forest transportation atlas); TLMP 2008, specifically TRAN1 (“maintain an inventory...update changes...annually”), and TRAN6.I.A subsections .2 (condition surveys according to INFRA guidelines) .3 (bridge inspections), and .4 (traffic hazards). Quality surveys are integral to a host of BMPs. The Clean Water Act also imposes a duty to conduct surveys of road wetland and stream crossings.

## **1. Road data is inadequate and unreliable**

### **a. EIS relies on old road condition surveys**

The first reason that road condition information used in the FEIS and ROD is deficient is because it is too old.

In *Lands Council v. Powell* 379 F.3d 738 (9<sup>th</sup> Cir. 2004), for instance, the 9<sup>th</sup> Circuit found that an EIS defective where it relied on a 13-year-old analysis of the cumulative impacts to Cutthroat Trout. The court held, “We do not suggest that all data relied upon by the agency to be immediate, but here the data about the habitat of the Westslope Cutthroat Trout was too outdated to carry the weight assigned to it.” *Id.*

This case is similar— the EIS relies on data at least a decade old, taking it on faith, in spite of overwhelming evidence that it is no longer reliable. The bulk of the RCS data dates from the late 1990s, up to a few more recent entries from 2005. There are very few newer entries. Of all listed fish stream crossings, 354 of them were last surveyed in 2005 or earlier, only 62 of them having more recent surveys. PR 2269.

This problem in general is widely known and acknowledged by on-site staff. See e.g. “meeting notes” at lines 108 – 116 (fishery IDT meeting notes). Even in 2005, the POW Roads Analysis identified a key issue with road impacts to aquatic habitat, and recommended updates to RCS data on stored roads “to obtain an up-to-date inventory of which roads need to be properly stored...” PR 1255 at ii. Evidently that never happened.

Resource experts here had to rely on their personal on-ground knowledge of the area, piecing together old RCS data, and to hunt down various other reports (such as the WRPs that contained snippets of newer information). IDT member Julianne Thompson advised against using RCS data because it was so dated, succinctly stating: “There are a lot of bad problems with roads in the North Thorne Area.” “Meeting Notes” at line 113. It is a good thing she spoke up because otherwise this would have been missed entirely. But it raises serious questions as to the reliability of the road condition information in the EIS. Whether or not Forest Service staff happen to go out of their way to pipe up and force an issue they’ve happened to have noticed is not a reliable way to collect data.

A fundamental problem with relying on the old RCS data is that it offers only a snap-shot in time, whereas road conditions continue to change over time. As a result the RCS predictably understates the extent of the maintenance problems. See PR 1255 (2005 Roads Analysis, noting that with maintenance shortfall conditions will have foreseeably changed for the worse). This problem is particularly acute with reference to fish passage problems and road erosion. The EIS fails to disclose this shortcoming of the information, or make any attempt to account in its effects analysis for the worsening road condition. Even at a site-specific level in the road and unit cards, it is usually impossible to decipher the source of information.

***b. EIS relies on unreliable road condition datasets***

A second problem with the RCS data itself is that it is inconsistently gathered and recorded. As the POW Roads Analysis wrote, “it was obvious” from their review that there were inconsistencies between how different crews collected data, and between surveys done in earlier and later years. PR 1255 at 31. That shortcoming is entirely ignored by the EIS and resource reports, which blindly relies on the RCS.

The reliability problem runs deeper than just different crews or methodologies—the data that is collected does not appear to be being tracked in any cohesive and reliable manner. One issue is that both RCS and INFRA databases are used by different people at different times, without any common understanding of which is the reliable dataset or which should be updated when information is uncovered. See 2155 (emails indicating INFRA, not RCS, are where road information is tracked). If it is the case that an “INFRA” database is how road condition and maintenance is currently being tracked, then that is a very serious deficiency because the resource reports and EIS all rely on RCS data for their analysis and conclusions. The INFRA database is not contained in the project record.

Further complicating the picture, the project record map of fish passage problems<sup>22</sup> is a printout of an ADF&G GIS map. PR 539. This raises the question whether the Forest Service has maps or GIS data showing red culvert locations, and also whether ADF&G or USFS data is being relied on to identify them.

***c. EIS analysis was conducted without benefit of on-ground knowledge***

A third shortcoming of the transportation-related datasets is that information for unit and road cards was in many cases based solely on GIS, rather than field surveys. See PR 0029 (1/9/12 Transportation Meeting Notes) (noting many road lines were not walked by hydrologists or fish biologists). Walking roads and proposed road lines is extremely feasible to do, and would have gone a long way to updating the outdated RCS data. If that cost was considered exorbitant, then the EIS still would have had to clearly identify the deficiency and explain why the information it is relying on is considered reliable.

***d. Data on decommissioned and stored roads is especially bad***

Road condition data is particularly deficient on stored roads. This was identified as a serious deficiency in need of correction in the 2005 POW Roads Analysis. See PR 1255 at 31 – 32, and at Table B.3. Nearly a decade later, a review of the EIS documents and project record suggests that this recommendation was never followed, and that RCS data on the current condition of closed roads has never been gathered. Reading the road and unit cards, and WRPs, a picture slowly emerges of “decommissioned” and stored roads where culverts and fill are left in place to degrade over time. To take one example, on the “decommissioned” upper portion of the 3016000 road, only a couple of structures were pulled and the rest left in place. We can tell that a Class I/ II stream just north of proposed unit 95 has continuing erosion problems. But it is unclear whether that crossing structure has been pulled, or whether it is related to the stream erosion problems.

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<sup>22</sup> We had suggested in our DEIS comments that red culvert locations should be displayed on a transportation map in the EIS. Placing this printout in the project record was the response to this comment. I dare you to use that in locating fish passage problems in relation to this project.

***e. Unreliable road data is a fatal flaw in the EIS***

Where information is incomplete or unavailable, NEPA mandates a process. First, the agency must always make clear that information is lacking. 40 CFR 1502.22. If the incomplete information is relevant and essential to a reasoned choice, and costs are not “exorbitant,” the information must be compiled and included. §1502.22(a). Under NEPA, a helpful scientific analysis must be performed where it is “reasonably possible.” See Pacific Rivers Council v. US Forest Service, 668 F. 3d 609, 624 (9<sup>th</sup> Cir. 2012). If the information is relevant, but costs to obtain it are exorbitant, the agency must include statements indicating this fact, the relevance of the missing information, a summary of existing relevant, credible, scientific evidence, and an evaluation of impacts based on a method that is “generally accepted in the scientific community.” §1502.22(b)(1) – (4).

None of these three steps are applied in this EIS. The shortcomings of the data are not reasonably disclosed in the EIS, or even in the resource reports. Unit and road cards do not specify issues of timing or reliability of road condition information on a site-specific level, even though this could have been done cost-effectively.

The transportation data is obviously relevant, and also essential to a reasoned choice among alternatives. Roads that have serious maintenance issues will cost more, and have more dire effects to watersheds and wildlife, than roads that are in good shape. This information is also a critical part of the puzzle in piecing together the existing condition

The cost to collect updated, reliable road condition data is not exorbitant. In fact, it should be part of the Forest Service day-to-day implementation of its basic duties. Even formal road surveys applying red-culvert protocols are relatively easy and inexpensive to do. But cost is clearly not the barrier here, as even the INFRA data-base was not queried. A few hours of staff time and an internet connection would be all that were required to include at least the best-available data of what is already collected.

And lastly, given the lack of this data, the EIS fails to evaluate impacts according to any method that is generally accepted in the scientific community. The EIS approach is to simply assume that road condition is perfect, until obvious problems (like red culverts) are brought to its attention. That is not a generally accepted method of evaluating impacts.

In sum, the underlying dataset used for the transportation analysis (with spillover effects on the fisheries, watersheds, wildlife, soils & wetlands and economics analysis) fails to provide a reasonable basis for the decision.

***2. Watershed and Fisheries data is Inadequate and unreliable***

***a. Lack of baseline data severely hampered ability of EIS to consider impacts***

As part of NEPA’s ‘hard look’ requirement, use of a reliable environmental baseline is critical. See Ctr. for Biol. Diversity v. Bureau of Land Mgmt., 422 F.Supp.2d 1115, 1163 (N.D. Cal. 2006); Or. Natural Desert Ass’n v. Rasmussen, 451 F.Supp.2d. 1202, 1212-13 (D. Or. 2006); Am. Rivers v. Fed. Energy Regulatory Comm’n, 201 F.3d 1186, 1195 & n. 15 (9<sup>th</sup> Cir. 2000).

The EIS in several places does disclose that the ability to detect significant changes is “extremely limited” due to lack of baseline data. FEIS at pp. 3-264 (20% threshold applied due to lack of baseline streamflow data); 3-266 (“unlikely that an increase [in peak flows] could be measured due to lack of baseline data”); 3-278 (“our ability to actually detect significant changes in streamflow, sediment, habitat features, or other aquatic parameters in response to the Big Thorne Project is extremely limited due to the lack of baseline data...”); B-49 (“predictive models cannot be developed because baseline streamflow data is only sparsely

available in Southeast Alaska and unavailable in project area watersheds.”); FEIS at B-16 (“We do not have predictive models or baseline data for most of the aquatic parameters likely to be affected by timber harvest activities.”).

Lacking actual data or predictive models, the EIS falls back on subjective descriptors, (e.g. “minor,” “moderate”) and repetition that fisheries and watersheds aren’t anticipated to be “measurably” affected. See e.g. FEIS at B-16. That is misleading and incorrect. Watershed and fisheries impacts would be measurable if you measured them. The correct statement would be that impacts aren’t anticipated to be “measured.”

Where information is essential to the analysis, as it is here, NEPA requires that it be gathered unless the cost is exorbitant. None of the missing baseline data would be particularly difficult or expensive to collect. Monitoring temperatures is relatively easy and inexpensive to reliably monitor on a continuous basis. See PR 779 (Thompson & Tucker, Effectiveness of BMPs for Water Quality, July 2007); Exh 300 (Rhodes Declaration) at ¶67. Monitoring stream flow is not particularly difficult. Sedimentation is measurable. Exh 300 ¶ 87. Loss of LWD is simple to measure. *Id.* ¶89.

The EIS moves too quickly to using mathematical computer models, which are easy enough for a contractor to run from a computer in Oregon, rather than the agency doing the baseline science that should underpin an extraordinary project such as this. But those are not generally accepted procedures, and the EIS hardly even attempts to justify them. The generally accepted procedure would be to gather data in an objective fashion.

#### ***b. Reliable stream surveys were not done***

Courts have held NEPA analysis inadequate where predictive models are used, without verifying their reliability with on-the-ground study. See *Lands Council v. USFS*, 395 F.3d 1019, \*1032 (9<sup>th</sup> Cir. 2004) (holding failure in watershed restoration plan to ground-check soil disturbance was fatal); *Kettle Range Conservation Group v. United States Forest Serv.*, 148 F. Supp. 2d 1107, 1127 (E.D. Wash. 2001).

The project record shows that the Forest Service struggled to get stream fieldwork done on a tight schedule. See PR 0028 (8/11/11 meeting notes) (discussing need for support for stream field work). Many of the proposed roads and units apparently weren’t even walked by hydrology or fishery experts. See e.g. PR 29. Review of the stream surveys that were done illustrates that, while certainly useful, they were cursory, one-time “walk-through” surveys. Significant gaps in data are evident.

#### ***i. Presence of anadromous fish***

The FEIS fails to disclose or analyze the adequacy of the stream classifications. Review of the record shows that current data is unreliable. Even though this information is essential to the analysis, and is relatively easy and straight-forward to gather, reasonable effort was not made to gather it.

It is not uncommon when ground surveys are done to discover that what had been typed a Class III or IV, on further review supports some fish. The presumption applied is usually that a stream doesn’t support fish, until a trained biologist with ADF&G or USFS actually physically pulls a fish out of a stream. Surveys depend on actually finding and identifying fish—which is an excellent technique but one that is prone to error. To some degree this is inevitable, or at least understandable. It is physically demanding to get a trained fisheries biologist out to walk all of these streams. Streams are also highly dynamic—sometimes barriers to fish passage (e.g. a falls) erode away, and sometimes they develop where they didn’t exist before.

These limitations become clear on detailed digging into the project record, but the FEIS and ROD make no effort to factor in this error. Because the starting assumption in the ADF&G database is that streams do not support fish, is not *random* error. It is not the case that there might be more, or fewer fish streams. As information improves, the amount of known fish habitat is, with certainty, going to increase. We know the amount of mapped fish habitat is lower than the amount that exists on the ground. The EIS never mentions or attempts to address this known error.

Lack of proper identification of fish habitat is a continuing problem for BMP implementation. PR 2189 at 13. Streams are commonly missed during planning and layout, and it isn't uncommon during implementation for operators to fail to properly evaluate streams that were missed. See PR 2189 at 18. The BMPs that would be applied for a fish stream (riparian buffer strips) are not applied to non-fish streams. And to an operator, it is much more convenient not to notice any fish.

The number of fish stream crossings listed in the EIS appears to mask situations where streams change from class IV to class II at a proposed road location. In such situations, especially where the stream classification is based on gradient alone, it is reasonably foreseeable that the road location will tend to fall on the Class II, not the Class IV section because roads are easier to build on flatter terrain. There are many examples of such situations in the project area. For example, in Unit 103 the proposed temporary road is located at such a location. See PR 578 at p.30. There, the proposed road was surveyed prior to fish stream flagging being put up, making it even more likely that engineering-oriented road planners inadvertently put the road on the fish-bearing reach. This problem is likely to be worst on temporary roads, which receive less attention to planning and monitoring.

When considering watershed & fisheries effects of roads, the FEIS analysis hinges almost entirely on stream crossings by class. Class II streams are considered with regard to sediment impacts, but Class IV streams are not. However if the downstream-end of a culvert drains to a fish-bearing stream, then for purposes of considering those effects it is functionally a fish stream crossing. Where a Class IV stream runs into a Class I or II, especially when a road is proposed (or exists) at that intersection, the sediment-delivery potential is very real. When sediment is elevated in a Class IV, HC-type stream, that sediment is going to the bottom of the reach. There is no other place for it to go. The situation is worsened when there is a temporary road proposed at the intersection, because the elevated sediment is going to *either* move through the culvert (culverts do not properly fill a sediment-storage function), *or* pile up at the culvert, to be released when the culvert is eventually removed (either by mechanical storage, or when the culvert inevitably plugs and the road washes out).

This deficiency in the available data also is relevant to consideration of fish passage. It is likely that the number of fish passage barriers is underestimated as a result of poor surveys. Also, where existing culverts block passage, contemporary upstream surveys would predictably fail to find any fish, resulting in under-classification of those reaches where fish *would* be, if there were adequate passage.

#### **ii. Class IV streams were not surveyed**

Incredibly, the Forest Service has simply thrown up its hands and given up on mapping and considering impacts of Class IV stream crossings. See PR 2237 at 3 ("some Class IV streams will not be designated until project implementation and may never be mapped.")

The given rationale for this failure is that Class IV streams, "by definition" are incapable of having direct influence on downstream water quality or fish habitat. That is simply wrong.

See e.g. Exh 300a ¶15. Even if “direct” downstream impacts aren’t likely, it is indisputable that long-term those impacts are going to happen.

This failure ignores the obvious problem that it is impossible to know whether a stream is Class IV or not if it hasn’t been surveyed. Field operators and road engineers are not qualified to make those judgments. Their natural incentive is going to be to err on the side of finding everything is Class IV or a non-stream. And in many cases it is impossible to judge based on GIS alone. But again, because the EIS fails to identify the sources of its information, it is impossible to gauge the reliability of the information for any given stream.

**c. Habitat condition assessments haven’t been done**

The EIS response to comments says that “all” watersheds in the project area have been rated using the USDA Watershed Condition Framework, and that none were listed “not properly functioning.” ROD at B-41. See also PR 794 (USFS 2011, FS-977 *Watershed Condition Framework*); PR 821 (USFS 2011, FS-978 *Watershed Condition Classification Technical Guide*);

This statement seems to contradict the project record, which does not contain PFC or Tier II surveys for all watersheds. Not even close. The only areas in the project area with any condition assessments were Luck Lake/ Eagle Creek (Fryxell 2010), North Big Salt Lake (commonly referred to as “Steelhead”) (USDA Forest Service unpublished document 2010a), Sal Creek (PR 766), and North Thorne River watersheds (USDA Forest Service unpublished document 2002b) (see also PR 713, North Thorne WRP). Also, Gravelly Creek reportedly had PFC and Tier II surveys (PR 2237 at 27), as did Falls Creek (PR 2237 at 28). And, of the areas that have been surveyed, virtually all of them show danger signs of not properly functioning. Lack of LWD, which is a long-term problem that tends to degrade watersheds over time, is a typical notation on stream habitat assessments.

**B. Watershed/ subwatershed delineation is not adequately explained, obscuring significant impacts**

There are several problems related to the EIS and ROD analysis of fishery and watershed impacts related to the choice of scale. This was a concern voiced by members of the IDT early in the project, but those concerns do not seem to have made it into the EIS or ROD. See “Meeting Notes” document in PR 814. As explained in the declaration of Jon Rhodes, “the FEIS did not analyze impacts at ecologically meaningful scales that are adequate for assessing impacts on streamflows, sediment delivery, and fish habitat,” an error which makes the EIS analysis inadequate. Exh 300a ¶94 - 98

**1. Watershed comparisons are irrelevant and misleading**

First, the EIS methodology makes comparisons *between* watersheds, which is not a relevant consideration and can be highly misleading. The number of acres proposed for harvest in Steelhead versus Pin Creek has nothing to do with anything. This basic issue was identified by Forest Service staff early in the process, See PR 814 (“meeting notes”), but the lesson was apparently not carried over into the EIS. The choice confronted by the decision-maker is not which watershed to log, or which watershed will be impacted worse than another. The information we need relates to effects of the proposed actions on *each* of the watersheds, in comparison to the current condition and the desired future condition. These comparisons between watersheds are particularly misleading because of the use of such a wide range of watershed scales. See Exh 300 ¶94 (noting Steelhead is more than 38X larger than the smallest watershed).



## **2. EIS does not analyze effects on ecologically meaningful scales**

The EIS conducts analysis of watershed impacts on scales that are not justified, and in some cases do more to obscure than reveal potential effects. See Exh 300 (Rhodes Declaration) ¶¶94 – 98.

The basic problem is that watershed impacts are evaluated on scales unrelated to ecological considerations. Exh 300 (Rhodes Declaration) ¶94. It appears that the EIS simply used whatever scales of analysis were handy, without considering or evaluating whether they were the correct scale for the analysis being done. Yet, the scientific literature establishes which scales would be most useful and revealing. In considering sediment and peak flow effects, impacts need to be considered at the scale of smaller basins, generally less than 10,000 acres. Exh 300 ¶¶95 – 97. However, six of the 13 subwatersheds evaluated here are more than 10,000 acres in size.

The use of too-large scales for analysis makes the application of the 2.5% and 20% thresholds to those large subwatersheds particularly inapt and misleading. Those metrics were never designed for application at such large scales. See Exh 300 ¶¶95, 96. For large subwatersheds, such as Steelhead, the choice of a large watershed delineation could easily mask the fact that the 2.5% and/or 20% thresholds are exceeded in some drainage basins. See Exh 300 ¶¶96, 97.

The EIS fails to explain or justify the scales of analysis. It also fails to explain or disclose how differences in watershed scale might mask effects, falling back on (misleading) comparisons between watersheds.

### **C. EIS Fails to consider Road-Stream Connectivity**

One of the most important factors in assessing cumulative, direct and indirect impacts to watersheds and fisheries is the degree of road-stream connectivity. The EIS entirely fails to consider this factor in its analysis. This is a fatal flaw that needs to be corrected before this timber sale could move forward.

Under NEPA and APA caselaw, a decision will be found deficient where it entirely fails to consider an important factor. While an EIS does not need to exhaustively evaluate every aspect of every issue, it does need to contain a “reasonably thorough discussion of the significant aspects of the probable environmental consequences.” *NRDC v. USFS* 421 F.3d 797, 810 (9<sup>th</sup> Cir. 2005).

The standard for whether a given scientific analysis must occur in an EIS is whether that analysis is “reasonably possible” to perform. *Pacific Rivers Council v. US Forest Service*, 668 F.3d 609, 624 (9<sup>th</sup> Cir. 2012). In *Pacific Rivers*, the court found the NEPA analysis of a 2004 EIS deficient by comparing with a 2001 EIS for an earlier version of the same management framework had included detailed consideration of effects to specific fish species, whereas the newer version merely tiered. Because the earlier EIS showed the analysis was “reasonably possible” to have conducted, the newer EIS was found deficient. The court went on to explain why the “reasonably possible” standard is effective at avoiding the “shell game” of agencies hiding analyses behind one another with programmatic and site-specific NEPA documents. *Pacific Rivers* at 626.

A common theme in the caselaw are deficiencies where the agency fails to actually, directly observe and test field conditions, relying instead on vague metrics. See *Ecology Center, Inc. v. Austin*, 430 F.3d 1057, 1068-71 (9<sup>th</sup> Cir. 2005) (failure to observe soil conditions); *Lands Council v. USFS*, 395 F.3d 1019, 1032 – 35 (9<sup>th</sup> Cir. 2004) (holding failure in watershed restoration plan to ground-check soil disturbance was fatal). This requirement

is applied to environmental baselines, not just direct effects of a proposed action. See Ctr. for Biol. Diversity v. Bureau of Land Mgmt., 422 F.Supp.2d 1115, 1163 (N.D. Cal. 2006); Or. Natural Desert Ass'n v. Rasmussen, 451 F.Supp.2d. 1202, 1212-13 (D. Or. 2006); Am. Rivers v. Fed. Energy Regulatory Comm'n, 201 F.3d 1186, 1195 & n. 15 (9th Cir. 2000).

### **1. Road-stream connectivity is a critical factor**

Road-stream connectivity is an essential and significant part of the analysis, and the EIS failure to consider it is a fatal flaw. Exh 300a ¶13, 19. Assessing road-stream connectivity is critical to evaluating cumulative watershed and fisheries effects in terms of peak flow and sediment—the EIS just ignores it. See Exh 300a (Rhodes Declaration) ¶9 – 21 (hereby adopted in full and incorporated by reference).

Road-stream connectivity is a critical factor in considering sedimentation impacts of logging and roading projects. Exh 300 ¶9. Roadside ditches collect and concentrate runoff, discharging to streams and increasing the length of road that delivers sediment-laden runoff. *Id.* ¶10. Discharge of sediment to streams is a particular problem where roads are relatively close to streams. *Id.* ¶11, 21. These issues are unique problems of this project due to the high density of roads, a high fraction of which appear to be in close proximity to roads. *Id.* ¶13. Road-stream connectivity is important to evaluating the cumulative and direct effects of road reconstruction and construction. Exh 300a ¶23. Road maintenance shortfalls further compound the problem, which is naturally significant due to our wet climate. *Id.* ¶13. These problems, and methods to discover and address them, are also discussed in Croke et al. (2005) where they found direct connectivity occurs primarily due to gully development at culverts, with average sediment transport 89 meters downstream. PR 724. It should be considered here that all roads within 300-feet of any stream likely have road-stream connectivity. Exh 300 ¶21. These effects should also be understood as long-term, persistent difficulties. Exh 300a ¶22, 24.

It is also well-established in the scientific literature that road-stream connectivity is an essential factor to be considered with reference to stream flow. See Exh 300 ¶16, 17. Roads tend to concentrate and channelize runoff, increasing peak flows to downslope streams. The EIS totally fails to consider this factor, which is a fatal flaw in its analysis of project impacts on stream flow.

Additionally, road-stream connectivity is important to evaluating potential effects on stream temperature. Exh 300 ¶ 88. Stream crossings and riparian roads have been shown to significantly elevate water temperature. *Id.*; see also (Nelitz et al. 2007).

The EIS doesn't analyze the issue so information is not available, but road-stream connectivity appears to be extensive in the project area. Review of the road and unit cards shows that many existing and proposed roads are in close proximity to streams. For example, the road network below Luck Lake is largely in close proximity to fish streams, could be expected to increase sediment and peak flows. Reading between the lines of various records in the project record, it is evident that sedimentation and road-stream connectivity is widespread. The available RCS data makes clear roads are inputting a large amount of sediment into streams. The watershed restoration plans that have been done in the project area commonly reference road-derived sediment as a problem in need of restoration. See PR 729, 504 (Fryxell 2010, Luck Lake WRP); PR 713 (Beard 2011, North Thorne WRP). The issue has also been noted in the roads analysis and ATM process. See PR 1203 (ATM); PR 1255 (POW Roads Analysis). Road-stream connectivity is particularly critical in a situation like this one, with so many decommissioned and stored roads criss-crossing the landscape.

## **2. EIS entirely fails to consider road-stream connectivity**

The EIS and resource reports make no effort to assess or consider road-stream connectivity. Even the resource reports and the road and unit cards entirely fail to assess this factor.

Yet, road-stream connectivity surveys are “straightforward and relatively easy to do and analyze.” Exh 300 (Rhodes Declaration) ¶9; (Wemple et al. 1996). In other studies in the area, efforts have been made to consider this effect. See PR 729. There is no reason for these not to have been done here.

The FEIS and resource reports do disclose the number of proposed Class I – III stream crossings as part of the sedimentation analysis. FEIS at 3-257. This measure is not a valid surrogate for consideration of road-stream connectivity, for several reasons. See Rhodes Declaration ¶10, 11, 12.

First, listing the number of proposed Class I – III stream crossings totally fails to account for the fact that roads are hydrologically connected with streams at points other than stream crossings. See Rhodes Declaration ¶10. Drainage to hillslopes near streams, and ditches and gullies below drainage diversions also connect roads with streams. *Id.*; Wemple et al., 1996; Rhodes and Huntington, 2000; Gucinski et al., 2001; Great Lakes Environmental Center (GLEC), 2008. Also, because roadside ditches collect and concentrate runoff into more channelized flows, that increases the distance sediment will travel, confounding the mitigating intent of buffer strips. See Exh 300a ¶10. Non-crossing connectivity features are particularly common where roads are relatively close to streams. *Id.* at ¶11, 21.

Also, listing the number of Class I – III crossings entirely fails to consider, or even to discover, the number of existing and proposed crossings of Class IV streams. Class IV stream crossings are an important part of road-stream connectivity, and their absence is a fatal flaw. See Exh 300 ¶14, 15.

### **D. EIS fails to adequately consider Presence and impact of Roads in close proximity to streams**

The EIS fails to reasonably disclose, and fails entirely to consider, the presence and impact of existing and proposed roads in RMAs and in close proximity to streams. As explained above, this compounds the failure to assess road-stream connectivity, in terms of sedimentation effects. Additionally, the presence of roads within riparian areas, shortly upstream of streams, and within one site-potential tree height of streams, are a significant factor in:

- Stream temperature
- LWD recruitment
- Sediment delivery
- Wildlife connectivity functions
- Blowdown

Roads in close proximity to streams are widely recognized as a highly significant factor in sediment, peak flow, LWD and other effects to aquatic habitat. See *e.g.* Rhodes Declaration at ¶21, 42 – 47, 50 – 51, 66, 73, 80, 82, 88; Fryell (2010), PR 504 at 16; Borroughs & King (1989). The EIS analysis simply considers the total amount of road in the project area, without regard to its placement in riparian areas or wetlands. The EIS and ROD make no effort to consider the amount of road in close proximity (e.g. 300 ft.) of streams.

This information is reasonably obtainable, and in some cases is actually already calculated for other projects. Fryxell (2010) identified the amount of road within 300 miles of

riparian buffers in the Luck Lake, Slide Creek, and West Fork Luck Creek subwatersheds. PR 504 at 17. In the 2005 POW Roads Analysis, the second “key” finding was that the current road system poses risks to fish habitat. That report notes that: “Many roads were constructed in close proximity to streams or cross streams and contribute to sediment movement. Many culverts (approximately 324 on roads analyzed) are considered to have fish passage problems. The current road system has increased the hydrologic network causing water to flow more quickly.” PR 1255 at ii.

## ***E. Road Maintenance issues are not adequately addressed***

### ***1. FEIS fails to adequately consider past and existing maintenance problems.***

It is beyond dispute that the Forest Service has a serious road maintenance problem. The FEIS blandly suggests road maintenance is being and will be done according to annual road maintenance plans, which prioritize treatments. The forest service is required to develop these annual road maintenance plans for all NFS roads. FSM 7732.11. (*See also* FSH 7700, amendment 7700-2008-3).

However, looking at the “annual road maintenance plans” in the project record is more concerning than comforting. *See* PR 2168 (2011 Big Thorne maintenance plan); PR 2169 – 2171 (POW maintenance plans, 2010 – 2013). These are not refined plans following a systematic prioritization framework, they are just spreadsheets and to-do lists. The record does not support a contention that the Forest Service is following FSM 7732.11, and developing annual road maintenance plans with a well-thought-out prioritization. They are supposed to be prioritized based on cost and environmental factors, but there is no evidence of this happening. Other documents in the project record make clear that road maintenance planning is an *ad hoc* process that is broadly unsatisfactory. *See e.g.* PR 2155 (email discussing recently completed road maintenance); PR 809 (marked up table, “POW Road Repair 2010); PR 799 (Thorne/Staney Area Worklist).

The EIS and resource reports, while generally acknowledging that funding is limited, fail to even attempt to quantify the amount of deferred maintenance in the project area. Earlier documents, such as the POW ATM plan, and the 2005 POW Roads Analysis (PR 1255) establish very clearly that this is a massive problem. *See* PR 1255 at 43 – 46. That year, 2005, the POW districts road maintenance budget was less than 25% of the needed dollars. *Id.* at 45. That analysis team queried the INFRA database, and determined there were about \$20,700,000 in deferred maintenance.

### ***2. FEIS fails to adequately consider BMP failures on stored/ decommissioned roads***

The EIS fails to take a hard look at the condition and quality of roads that are to be reconstructed, or at the work that would need to be done to re-open them. As discussed above, these roads have numerous chronic problems related to neglected maintenance, placement in close proximity to streams, fish passage, wetland fill and other issues. These roads have also been particularly neglected in terms of monitoring. As a general rule, the EIS simply draws on GIS layers and old RCS data in listing out miles of “stored” and “decommissioned” roads, without any more thought to the matter. An important factor that is missed in this approach are the many closed roads where either the initial closure was not properly done, or where problems have subsequently developed. That data is a very important part of the existing condition, in terms of watershed, fisheries, transportation and economic effects, that should have been included in the EIS analysis and incorporated into the Decision.

It is notable that Forest Service monitoring data showed departure from full BMP implementation was a particular problem on road storage projects. See PR 2189. The 2012 monitoring report uncovered problems even on roads that had been closed 8 years previously, underlining the importance of continued monitoring and need to anticipate future maintenance & corrective action. *Id.* at 15 (showing problems on Mitkof Roads 6226 and 6280). Of the 37 roads that were stored and monitored in 2012, twelve (12) departures from BMP implementation were noted.

### **3. FEIS fails to adequately consider likelihood of future road maintenance problems and shortfalls**

Given these persistent problems, it is reasonably foreseeable that continuing maintenance funding shortfalls will hinder project implementation and mitigation. The EIS does not admit of such a possibility, in spite of USFS commonly undertaking road responsibilities for operators.

Even if it were assumed that the operator would assume the economic responsibility for all road maintenance through the end of the sale, this project will still incur additional long-term maintenance requirements. The impact of roads on streams is persistent, and regular monitoring and maintenance is a certain to be required. See Exh 300a ¶22, 24.

The FEIS says that decommissioned and stored roads will be in a “self-maintaining” state, but there is no such thing. Where culverts are left in the road after storage, they “need to be monitored and maintenance is required to ensure the structures are not plugged with debris.” PR 2189 at 12. Streams are dynamic and problems develop over time. For instance, where culverts are removed, the effectiveness of the seeding needs to be re-evaluated, and a second pass done if the initial seed does not provide adequate cover. *Id.*

### **4. Opportunity Costs not considered — road restoration that will have to be delayed or not done**

The EIS fails to take any account of the opportunity costs of decisions to place new logging units on old roads that are in need of restoration. Placing new units on old roads is a irreversible commitment of resources, in that those roads will have to be maintained and re-opened for future management of those stands. Yet many of these roads were poorly located to begin with and are prioritized in WRPs for restoration and decommissioning.

To take one example, the 3016000 road screams out for closing. According to Beard (2011), this was part of a 2011 road storage contract to close from MP 5.25 to 6.34. The 3016400 road was also part of that storage contract, from its start to its terminus at MP 1.36. PR 713 at 59. The EIS, and road and unit cards, don't mention any of this. The road card (ROD App.2 at pp. 108 – 112) indicates there are no Class I, II or III crossings along the segment, but this is false as the road starts out at a Class II stream and runs through the RMA for some distance. The EIS totally fails to consider the lost opportunity cost (and the direct effect) entailed in using and extending the 3016000 road, which runs through the critical Honker Divide OGR.

### **5. EIS doesn't consider time-frame of reconstruction/stored roads**

The EIS fails to consider the temporal aspect of reconstruction and storage decisions. It is acknowledged that, after closure, even with perfect implementation of BMPs, it takes many years for the ecological benefits of storage to take hold. Fill slopes and pulled crossings need years to stabilize and revegetate. The negative effects of roads on the landscape and on sediment are persistent, even after closure. See Exh 300a ¶22, 24. On the flip-side, storage and reconstruction activities input pulses of sediment that degrade aquatic habitat. Exh

300a ¶23. The EIS characterizes these as “short-term” impacts, but all the evidence is to the contrary. Exh 300a ¶22. The danger of a flying bullet is “temporary” too, but that doesn’t mean the consequences can’t be permanent.

As a result, important factors in considering impacts of road construction/reconstruction/storage and decommissioning are the timelines from (1) when existing roads were closed, and how, and (2) how long after planned storage those roads are anticipated to be re-opened. We appreciate that the Forest Service abandoned the DEIS approach of creating new storage categories, but the relevant factors still ought to be considered.

For example, the 3015000 road is mapped and analyzed as a “decommissioned” to be re-built, then re-decommissioned. On closer examination, that road was stored just a few years ago by pulling only a couple of the drainage structures. It is unlikely the fill on that road has had any time to stabilize. Here it will be re-constructed, providing another pulse of “short-term” disturbance. Then, it will again be closed, providing yet another “short-term” disturbance. A glance at the map shows this valley is continuously clearcut along both sides of the valley, and that given the date of past harvest it will be coming online for pre-commercial or commercial thinning again in the near term. That fact makes it foreseeable that, at the conclusion of this project, the decision will be not to pull drainage structures, but to leave them in place because the road will be used again a short time in the future. Or, if drainage structures will be pulled, it is foreseeable that they will be put back in place again.

#### ***F. Decision Conflicts with Clean Water Act, §404; and the FEIS fails to adequately address Fish Passage & Temporary Fill***

##### ***1. CWA requires permit for wetland dredge & fill***

Under CEQ regulations an EIS must discuss possible conflicts between the proposed action, and the objectives of other Federal, regional, State or local plans and policies. 40 CFR §1502.16(c).

Section 301 of the CWA prohibits "the discharge of any pollutant" into "the navigable waters of the United States" except in accordance with permits issued under, § 404 of the CWA. 33 U.S.C. § 1311(a). To establish a prima facie case of a violation of Sections 301 and 404, a plaintiff shows “that defendants are (1) persons who (2) discharged a pollutant (3) from a point source (4) into waters of the United States (5) without a permit issued under CWA section 404. **See** 33 U.S.C. §§ 1311(a), 1344 and 1362 (definitions).” *Ogeechee-Canoochee Riverkeeper, Inc. v. T.C. Logging, Inc.*, 2009 U.S. Dist. LEXIS 67705, 26, 70 ERC (BNA) 1455 (S.D. Ga. Aug. 4, 2009).

"Fill material" is defined as "material placed in waters of the United States where the material has the effect of: (i) Replacing any portion of a water of the United States with dry land; or (ii) Changing the bottom elevation of any portion of a water of the United States." 33 C.F.R. § 323.2(e)(1). Fill material is a pollutant under the CWA. *See U.S. v. Weisman*, 489 F. Supp. 1331, 1337 (M.D. Fla. 1980); *U.S. v. Robinson*, 570 F. Supp. 1157, 1163 (M.D. Fla. 1983). The term "discharge of fill material" means the "addition of fill material into waters of the United States" and includes "road fills." 33 C.F.R. § 323.2(f). Furthermore, the construction undoubtedly involved bulldozers and dump trucks which are point sources under the CWA. *See Weisman*, 489 F. at 1337 (bulldozers and dump trucks are point sources). Thus, the construction of the road using fill material was a discharge of a pollutant from a point source.

*Id.* It should be added that fill also occurs with road reconstruction and maintenance, where there is sediment discharge to streams or wetlands.

The Clean Water Act contains an exemption for:

“construction or maintenance of... forest roads... where such roads are constructed and maintained, in accordance with best management practices, to assure that the flow and circulation patterns and chemical and biological characteristics of the navigable waters are not impaired, that the reach of the navigable waters is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized.”

33 USC 1344(f)(1)(E). Applicable BMPs include those established by Corps regulations establish a number of BMPs, including: (i) holding the roads to a “minimum feasible” number width and length); (ii) location “sufficiently far from streams...to minimize discharges”; (iii) bridging and culverts the prevent restriction of expected flood flows; (iv) properly stabilizing and maintaining fill “during and following construction” to prevent erosion; (vii) “design, construction and maintenance of the road crossing shall not disrupt the migration or other movement of those species of aquatic life inhabiting the water body;” (xiv) use of “suitable material free from toxic pollutants in toxic amounts;” and (xv) “all temporary fills shall be removed in their entirety and the area restored to its original elevation.” 33 CFR 323.4(a)(6)(i) – (xv).

It is defendant’s burden to show that an exemption applies to discharge. Ogeechee-Canoochee Riverkeeper, Inc. v. T.C. Logging, Inc., 2009 U.S. Dist. LEXIS 67705, 27 (S.D. Ga. Aug. 4, 2009) (citing U.S. v. Brace, 41 F.3d 117, 124 (3d Cir. 1994)); United States v. Huseby, 862 F. Supp. 2d 951, 962 (D. Minn. 2012). Exceptions from the CWA must be analyzed in light of the Act’s purposes, and construed narrowly. United States v. Moses, 496 F.3d 984, 992 (9th Cir. Idaho 2007).

It is clear that, under the Clean Water Act, forest roads filling over wetlands and waters of the United States require a §404 dredge & fill permit if BMPs are not followed. See PR 0057 (USACE scoping comments); PR 2225 (“If the Agency does not provide fish passage, then a 404 permit must be obtained.”)

What has been somewhat less clear, at least in practice, is what the trigger is for requiring a §404 permit for roads that admittedly are not complying with the BMPs. While recognizing for years that a huge percentage of its roads are out of compliance with CWA BMPs, the Forest Service has never obtained a §404 permit for any of these logging roads or crossing structures. To our knowledge the issue has never been directly confronted by any court. The Forest Service seems to have taken the position that this question need only be answered at initial construction of a road, and that BMP violations that emerge merely become part of an existing condition, and are unrelated to any project decision. The reader is assured that all planned road construction “will” fully apply BMPs, and that is supposed to be good enough, even though the maintenance backlog continues to accumulate.

That interpretation is plainly untenable. First, it is incompatible with the clear language of the statute and regulation. See 33 USC 1344(f)(1)(E) (...constructed *and maintained*) (emphasis added); 33 CFR §§323.4(a)(6)(iv) (“during *and following* construction”), §§(vii) (“design, construction and maintenance...”), §§(xv) (...“fills shall be removed...and the area restored...”). Those words make no sense, and have no legal effect, under the Forest Service’s interpretation.

Second, it is incompatible with the purpose of the Act, which include non-impairment of flow, circulation, and chemical and biological characteristics of navigable waters, assurance that the reach of navigable waters are not reduced, and that adverse effects on the aquatic environment be minimized. See 33 USC 1344(f)(1)(E). It would (indeed, it does) make a mockery of the Act’s purposes to interpret the language in a way that permits the Forest



Service to allow previously-built forest roads to fall out of compliance, then continually re-build and restore them without ever facing up to BMP violations. The form and content of the Corps' BMPs in the CFR make very clear that BMPs require ongoing implementation to be effective.

If compliance with BMPs is not required in a situation such as we have here—where noncomplying roads, which otherwise will be going out of commission, are proposed for ongoing use in a major timber sale— then we are at a loss to guess when compliance ever would be required. The decision being made here encompasses the critical decision of how to classify road maintenance. The project action encompasses reconstruction and storage of roads.

The better interpretation, indeed the only one that makes any sense at all, is that BMPs must be complied with during construction and maintenance of a road. If, at any point during construction or maintenance of a dredge & fill operation, the BMPs are not complied with, then that construction or maintenance dredge & fill requires a §404 permit.

Here, the proposed action triggers the CWA duties in several ways.

First, the decision being made includes decisions about road management and maintenance. The tendency is to characterize road maintenance as a completely separate and ongoing activity, but that's nonsense. The timber sale contract will include requirements to maintain roads during use. The ROD includes decisions establishing RMOs for these roads. Whether to use and maintain these roads, and how, is part of the decision being made here. Indeed the importance of project-specific analysis has been recognized in the transportation planning and roads analysis process. *See e.g.* PR 2155 (POW Roads Analysis).

Second, the decision being made includes decisions to re-construct what had been decommissioned and stored roads that were left with red culverts still in place. That decision, to bring a road back online, is akin to a decision to construct a road, and it certainly constitutes a thorough decision as to how to maintain the road. If you want to apply the silviculture exemption to those roads, then they'll need to comply with the CWA §404 BMPs. Putting operators in charge of maintaining those roads where they have fish passage problems could subject those operators to citizen suits under the CWA for failure to obtain a §404 permit.

Third, to the extent the proposed action will have an indirect effect on whether roads comply with BMPs, that effect must be considered. The EIS says that the project "will not cause the repair or replacement of any red culverts to occur at a later date than scheduled." ROD at B-18. The decision is premised on this argument. A timber sale and road project, particularly one of this magnitude, cannot help but have implications for road maintenance priorities. Some red culverts in the project area, along roads proposed for eventual storage and use on the project, might be fixed earlier but-for this timber sale. Additionally, the timber sale traffic on roads, particularly where they are not in compliance with BMPs, will directly result in additional fill to wetlands and BMP non-compliance. *See* Rhodes Declaration ¶ (log truck traffic directs sediment into streams). Also, while the cash flow is confoundingly difficult to unravel, it stands to reason that spending millions of dollars building and maintaining new logging roads, will come at the expense of maintenance dollars otherwise available to fix problems on roads.

Fourth, to the extent that roads will be kept open after use in logging for recreational purposes, those roads clearly do not qualify under the silviculture exemption.

## **2. Fish passage**

There is no dispute that red culverts are a massive, serious and widespread problem in the project area. Over 40% of all fish stream crossings in the project area are red. There is also no dispute that these red culverts are in flagrant violation of both CWA §404 responsibilities, and State law.

### ***a. Construction, reconstruction or maintenance of roads with red culverts requires compliance with fish passage criteria, or a §404 permit***

The first big problem with regard to fish passage is that the FEIS and ROD completely neglect the duty to address compliance with the Clean Water Act. As described above, there does not seem to be any substantive dispute that these roads do in fact obstruct fish passage, or that they are in violation of CWA BMPs. The Forest Service seeks only to continue to dodge the issue by refusing to address it.

### ***b. Fish passage information relied on isn't reliable, and understates the extent of the problem***

The lack of recent on-ground, reliable and recent information, addressed in more detail in section A above, is particularly acute on the red culverts issue. In the first place the information relied on is unreasonably old. Of the 157 known red culverts in the project area, 134 of them were last surveyed in 2005 or earlier. PR 2269. That is unreasonable given that conditions foreseeably would worsen over time. Second, digging through the project record it emerges that many additional red culverts exist in the project area which are not reflected in the RCS database. The Luck Lake WRP (Fryxell 2010) indicated that completing data gaps in RCS fish crossings, and upstream assessments, needed to be done to prioritize fixing red pipes. PR 504, 729 at 55. Unidentified red culverts were noted in that report on the 3000336 road, the 3000332 road, 3000320 (rated a Class II green pipe, but probably red according to Wiener 2009); 3030100 (Wiener indicated red pipe at MP 1.3, but RCS lists it as green). See PR 504, 729. The 3000336 road, which was in the worst shape of any of those surveyed by in 2009, is in terrible shape, and was noted as having an unidentified red culvert by Fryxell (2010). *Id.* at 68. These are only a few examples, there certainly are others.

Given the continuing maintenance backlog and knowing that streams change, it is implausible that the fish passage problems in the project area are not greater than is being acknowledged.

The FEIS, however, has made no attempt here to conduct further fish passage surveys, or to re-survey known red culverts. The ROD makes no effort to further identify and fix red culverts. Given the recognized importance of this issue, and the known methods for obtaining the information, that is a serious and unforgivable failure.

### ***c. Cumulative effects regarding fish passage are not adequately considered***

The EIS repeatedly assures the reader that all red culverts will be repaired, contingent on funding, according to a forest-wide system of prioritization. That is false on several levels.

First, there is no forest-wide prioritization for fixing red culverts. Such a process simply doesn't exist. The project record for the FEIS was updated to include a spreadsheet showing "BSI" scores for project area red culverts. See FEIS at B-18; PR 2269. As the response to comments admits, this is a "first cut" a prioritization of red culvert replacement. That conflicts with the FEIS assurance that culverts will be fixed according to a forest-wide prioritization. The project record also contains other documents, such as Beard (2011), containing other listings of red culverts with a different system for prioritization and

planning. PR 713. Our review of the BSI-scores spreadsheet (PR 2269) was, to be honest, confounding. I suppose there must be someone, somewhere, who understands what this thing means or how it works, but simply dumping it in the project record doesn't provide reasonable ability for the public or decision-maker to evaluate it. Also, no effort at all is made to mesh this new spreadsheet system with the proposed action.

Second, even if such a forest-wide prioritization system did exist, the work is not happening on the ground and, given funding limitations, there is no realistic chance of it happening. The Forest Service has been promising that all red culverts are on track to be fixed for over a decade now. the FEIS does disclose that funding limitations which, in practice, make it unforeseeable that project area red culverts will be fixed. *See e.g.* FEIS at B-18 ("...road funding over the last few years has been decreasing.... As a result...there is no guarantee that the red culverts on these roads would be 'fixed' when prioritized against other red culverts or road maintenance issues in the Forest.") No "guarantee"? Rather than hedging promises, under NEPA the Forest Service duty is to evaluate the reasonably foreseeable effects using reliable, objective data. Yet it is not even clear (lacking any newer surveys) that the problem is being fixed any faster than new fish passage barriers are emerging. We don't even know, based on any reliable data, if we are moving forwards or backwards. In that context it is unreasonable to simply rely on an imaginary "forest-wide prioritization" process to fix all the red culverts.

A more realistic picture of Forest Service plans is contained in Beard (2011), the North Thorne WRP. PR 713. There, the team ranked red culverts into one of five categories, depending on urgency and cost of repair. Recommendation #5, which is applied to at least 21 of the red culverts in the North Thorne area, is that "permanent complete barrier acceptable with mitigation and 404 permit." PR 713 at 62 – 64. Category #4, which is applied to another four red pipes, is that a "permanent partial barrier" is acceptable with mitigation and a 404 permit, but that will require action if the barrier becomes complete. PR 713 at 64. Categories 2 and 3 allow temporary partial or full barriers (respectively) until the end of the culvert's life, and then full passage. These categories are applied to another 8 red culverts. Category 1 culverts are recommended to "achieve full aquatic passage as soon as practicable." *Id.*

The EIS and ROD, misleadingly and incorrectly, lists every single red culvert as being slated for removal or replacement. *See* FEIS at 3-349; PR 2225 at 49 – 52. For example, on the 3015000 road there is a red culvert at MP 0.74 with 1.36 miles of upstream fish habitat. The Fisheries resource report lists that culvert as slated for "prioritized replacement" under all alternatives. Beard (2011) however puts it in Management Recommendation #5, which is to allow a permanent total barrier to fish passage and get a \$404 permit. PR 713. To take another example, on the 3015105 road there is a red culvert at MP 0.6 with 3,274 feet of habitat upstream. Beard (2011) puts that into Category 1, which is to immediately fix the red culvert, without waiting until the end of its life and then doing it. PR 713 at 63. The EIS by contrast puts that into the "project removal" category, without ever disclosing or considering the conflict with management recommendations. To put it another way, under current direction this culvert is prioritized for immediate removal; whereas under the ROD it will have to wait until after the up-road units are logged and the operator decides to close the road.

The EIS entirely ignores these categories, and makes no real effort to consider the impact of the proposed action on those culverts. At most it admits there is "no guarantee" all culverts will be fixed given funding limitations, even in the face of overwhelming information suggesting the intent is only to fix some of them, and even that is uncertain.

Finally, the EIS entirely fails to admit of any possibility of fish passage barriers emerging in the future on project roads after they are decommissioned or stored. That has occurred

many times in the past, and nothing about this project gives any more assurance that it won't happen again in the future. The best way to avoid that problem, as we will see in a moment, is to remove all drainage structures on stored roads.

## **2. temporary fills**

Another of the baseline CWA BMPs requires removal of "all" temporary fills to wetlands. 33 CFR 323.4(a)(6)(xv).

In response to comments that temporary road fills dumped onto wetlands, and left there, should require a §404 permit, the Forest Service says that the Corps "did not provide comments on the Draft EIS" for the project, then goes on to site comments on timber sales from 2002 and 2004 to say that road storage or decommissioning is an acceptable implementation of the baseline provision 15 on temporary roads. FEIS at B-128.

While the Corps may not have commented on the DEIS, they did provide scoping comments in which they specifically reminded USFS of the temporary fill provision, making particular note of its applicability vis-à-vis long-term maintenance, abandonment, restoration and temporary/permanent road designations. PR 57 (3/23/11 USACE scoping comments).

Even if the decade-old comment letters on other timber sales are relied on, the storage/decommissioning strategies actually proposed here do not comply with them because many (most) of the drainage structures will not be removed. It is the generally accepted best-practice in closing forest roads to remove all drainage structures, and to create additional waterbars. However, the Forest Service has evolved into the practice of saving money by only removing some of the structures. It is important that this practice is driven by economic concerns, not ecological ones.

If the Forest Service wants to leave "temporary" roads in place over wetlands, and keep their silviculture exemption to §404, then at minimum all drainage structures need to be removed.

Exceptions to the CWA are to be construed narrowly, and in light of the Act's purposes. United States v. Moses, 496 F.3d 984, 992 (9th Cir. Idaho 2007). The forest service's asserted interpretation, that pulling a few culverts where it is convenient and abandoning "temporary" roads complies with that BMP, does not measure up. The regulation's language is clear. There is no ambiguity as to whether removal of *some* fill might comply. The regulation clearly states that "all" of it "shall" be. §323.4(a)(6)(xv). Additionally, this interpretation does not mesh with the statute's expressed purposes: "to assure that the flow and circulation patterns and chemical and biological characteristics of the navigable waters are not impaired, that the reach of the navigable waters is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized." 33 USC 1344(f)(1)(E). Where a wetland has road fill on top of it, unless it is removed then the reach of navigable waters is reduced. Additionally, leaving such roads in place fails to assure against impairment of flow and circulation, and chemical and biological characteristics of wetlands. This purpose is *particularly* thwarted to the extent that "decommissioning" commonly leaves a large number of drainage structures in place. The project area is replete with examples of previously "decommissioned" roads where drainage structures were left in place. Nothing in the ROD shows that this practice is about to change, and in fact the Draft EIS storage "categories" (A, B and C) illustrate that practice is being expanded to leave even more culverts in place.

We understand that it is inconvenient for the Forest Service and operators to have to remove temporary roads, but, that is the hole you've dug for yourselves.

### **3. Responses to comments**

The Forest Service puts forward a few points in answer to the §404 concerns, which we will address here.

First, the Forest Service asserts that all roads “will apply” the practices described in BMP 12.5, and therefore the exemption applies. ROD at B-40. As described above, with regard to several of the specific CWA-mandated BMPs and specific roads, this is clearly not true. Almost half the fish stream crossings in the project area violate fish passage requirements, and the ROD does not commit to fixing them as part of the project. That is not because the ROD has nothing to say about road maintenance & repairs. It says plenty, and makes important decisions about how roads will be managed. The ROD makes an affirmative decision to allow these violations to persist at least through the life of the project, leaving to future decision-makers during implementation to decide which culverts must be removed or repaired as part of road decommissioning and storage.

Second, the forest service points to recent monitoring data showing 98.6% full compliance with BMPs. ROAD at B-40. This is misleading. The 98.6% figure does not refer to CWA BMPs specifically. Certainly on the red culverts issue compliance is nowhere close to 98.6%. The general 2012 monitoring report did not consider the red culvert issue, removal of temporary fills, or the other CWA BMPs specifically. Nor did it consider ongoing road maintenance. This reasoning seems to conflict with clear statements elsewhere in the record (most notably the WRPs) that acknowledge that the CWA BMPs are not being complied with, that the Forest Service has no realistic hope of complying with them, and that therefore §404 permits will be required. *See e.g.* PR713.

Thirdly, the EIS says that the EIS identified known erosion and maintenance needs on existing roads, that new maintenance needs have been identified through additional road surveys, and that this information has been included in the FEIS and resource reports. FEIS at B-40. We agree that, to some degree, inclusion of this information helps to remedy the NEPA problem of not disclosing or considering impacts. However, critical NEPA errors remain. Most notably, only some of the identified maintenance needs are identified in the EIS, and a few more of them are addressed in resource reports. To get anything like a complete picture, one has to piece together not only the EIS and resource reports, but also a massive data-dump in the project record. And even then the picture is only partly complete. *See* Subsection I.A.1 above (road survey data inadequate).

Simply dumping reports and surveys into the project record doesn’t constitute disclosure and consideration under NEPA. Discussion of significant impacts must be contained in the EIS, 40 CFR §1502.1; information substantiating analysis fundamental to the EIS may appear in an appendix, 40 CFR 1502.18; and other information, the absence of which does not impede agency and public review, may be incorporated by reference, §1502.21. *See Pacific Rivers Council v. US Forest Service*, 668 F. 3d 609, 628 (9<sup>th</sup> Cir. 2012).

Importantly, *even if* the EIS truly disclosed maintenance needs, that does nothing to obviate the requirement for §404 permits.

In conclusion, the ROD perpetuates and worsens existing problems, and creates new ones, with non-compliance with the Clean Water Act §404. The FEIS continues a pattern of failing to disclose and consider this legal problem. Nor does it adequately address the substantive environmental consequences of road-wetland problems. It is time for the rubber to hit the road. If this issue is going to be address in our generation, it needs to be addressed now.

#### ***F. EIS entirely fails to consider sedimentation effects of increased road usage***

The EIS entirely omits any consideration of the effect of increased traffic and use of roads on sedimentation.

As explained in the declaration by Jon Rhodes (Exhibit 300 ¶¶25 – 34), which is hereby incorporated, increased use of roads such as is proposed here will predictably increase sedimentation of streams. Increasing traffic mobilizes fine sediment in a variety of ways (rutting, splashing, disrupting aggregate, increasing need for maintenance, etc.). *Id.* This effect is clearly documented in the scientific literature, and it is pronounced. *Id.* In western Washington use of gravel road by more than four log trucks per day generated 100 times the sediment as compared with roads with light use, and 1,000 times that from abandoned roads. Exh 300 ¶27; Exh 348 (Reid et al. 1981); Exh 349 (Reid & Dunne, 1984). In western Oregon another study documented that log haul increased sediment production by 2 to 25 times. Exh 300 ¶27.<sup>23</sup> The problem is especially pronounced in wet climates. *Id.* ¶ 28 – 32. The problem also has a synergy with road maintenance. When maintenance is not done, ruts develop, which greatly increased the rate of sediment mobilization. Exh 300 ¶29, 30. Also, more traffic increases the need for more frequent maintenance, which itself elevates sediment delivery. *Id.* ¶32. Increased use of roads can also confound efforts to limit sedimentation (ie. BMPs). *Id.* 31.

This effect is highly foreseeable and measurable. A timber sale of this size will obviously involve a large amount of truck traffic. Studies have shown that rates of sediment delivery from roads is “closely correlated to traffic volume.” Exh 300 ¶27 (quoting from PR 735 (Gucinski et al. 2001)). The volume that would be hauled, the distance, and even over which roads is known information. Given the significance of the issue, there is no good reason the EIS could not have quantified this effect. Certainly it should have been at least disclosed.

#### ***G. EIS entirely fails to consider effect of landings on watersheds***

The EIS also appears to have entirely forgotten to factor in past and proposed landings in its consideration of watershed and fishery impacts. A glance around on the ground, or even just on Google Earth, reveals that past logging units have left a large number of landings in place. Also, obviously, the proposed logging units will require more landings. It is probably a safe assumption there will be one per unit. Rhodes indicates landings typically comprise 1.5 – 2% of the total area logged, which would correlate to about 127.3 acres of landings or this project. Exh 300 ¶39.

Landings are akin to roads in terms of their impact on peak flow and sediment. See Exh 300 ¶35 – 40. Like roads, landings permanently replace natural soil with an impervious gravel surface. Also like roads, landings tend to be located in flatter areas, which commonly happen to be riparian or wetland areas. Thus the failure of the EIS to indicate number or location of landings is an especially significant defect. Exh 300 ¶40. Where they are located on hillslopes, landings tend to require large volumes of digging and fill. Like roads, landings erode and mobilize large amounts of sediment, which can be delivered of considerable

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<sup>23</sup> Citing Foltz, R.B., 1996. Traffic and no-traffic on an aggregate surfaced road: sediment production differences. Presented at the FAO Seminar on Environmentally Sound Forest Roads, June 1996, Sinaia, Romania. 13 p.

distances. *Id.* ¶35.<sup>24</sup> And, like roads, these damaging effects are persistent. *Id.* ¶60. The failure of the EIS to consider sedimentation effects of landings is a significant defect in the analysis of sedimentation effects. *Id.* ¶40. Landings should have been factored in when applying the 2.5% threshold for sedimentation impacts of roads.

The failure to factor in landings is also a defect for the peak flow analysis in terms of the 20% measure. This project hinges its analysis and mitigation on keeping the proportion of watersheds less than 30 years old below the 20% threshold, which analysis assumes that all old units will have completely regenerated. Landings, however, do not regenerate at anything remotely approaching the rate of clearcuts. See Exh 300 ¶60. Landings are a permanent and irreversible imposition on the landscape. The EIS needs to be re-done taking this important factor into account. This issue is particularly important in watersheds like Steelhead, where a mitigation regime is being put into place to keep the percentage of the watershed that is recently clearcut below 20%. Every acre in these watersheds that is a landing, is an acre less available to log now

#### ***H. Fisheries values of streams are not adequately disclosed or considered***

The EIS evaluates fisheries and watershed impacts on watersheds and subwatersheds, without making any real effort to consider the particular fisheries values of these areas.

This failure is particularly puzzling given that the project record contains snippets of very useful information that would have enabled these fisheries values to have been considered. The Watershed Restoration Plans are a particularly useful source of this data. See PR 785 (Cobble); PR 766 (Sal Cr.); PR 504, 728 and 729 (Luck Lake/ Eagle Cr); and PR 713 (North Thorne). For instance, in the 2009 Luck Lake stream restoration opportunities report (Fryxell 2009) it was noted that the outlet of Luck Lake into Eagle Creek is the most popular sport fishing area, and that the lower reaches of Luck Creek is a high density fish habitat area. PR 728 at 2. For example, the Thorne River is a very significant recreational and sport fishing river, and the North Thorne is also highly significant, especially as an alternative to the main stem of the Thorne when it is crowded. PR 713. Those documents also clearly illustrate that, when it wants to, Forest Service biologists are more than capable of identifying and planning around high-value fishery areas. Honestly, this is something y'all can be very good at; it is perplexing why you haven't even tried on such an important timber project.

The closest the EIS comes to considering this factor is in comparing the various subwatersheds *with one another* in seeing which contain the "most" sensitive anadromous fish streams. FEIS at B-15. There are several problems with this approach. While sensitivity is one important factor, that does not correlate to *productivity*. Also, as indicated above, comparisons of watersheds with one another are irrelevant to the decision being made. What matters is the sensitivity of the subwatershed in terms of the significance of the impact on fishery resources. The choice confronted is whether to log or not to log; not whether to log North Thorne or Goose Creek. Also, those comparisons mask effects rather than reveal them, due to the huge differences in scale being applied.

A useful analysis would have considered the significance of foreseeable effects on a site-specific level, with reference to both the intensity of the cumulative watershed effects (ie. sedimentation, LWD deficiencies, problems with channel erosion, etc.), as well as the importance of the affected reaches for fisheries. One could say that the upper-most reaches

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<sup>24</sup> quoting from Ketcheson, G. L. and Megahan, W. F., 1996. Sediment production and downslope sediment transport from forest roads in granitic watersheds, USFS INT-RP-486. USFS Intermountain Research Station, Ogden, UT.



of Eagle Creek are small as compared with the gross mileage of anadromous habitat in the watershed, but that only masks the fact that this reach is hugely popular for sport-fishermen. Lack of pools due to LWD deficiencies and sedimentation are more significant on that reach because of its fishery value. If given that knowledge, the decision-maker may well have decided that unit 207 isn't so important after all.

### ***I. BMP Effectiveness is overstated and mis-applied***

It seems to come as second-nature in Forest Service NEPA documents to promise that BMPs will be implemented, and that therefore impacts will be minimized, and that therefore impacts will be minimal. This sort of conclusory parroting does not fulfill NEPA's mandate to take a hard look at impacts, and can be highly misleading to decision-makers inclined to want to believe that everything is fine.

The EIS bases its confidence in BMP implementation on the forest service monitoring reports, the most relevant being the 2012 Soil & Water BMP monitoring summary. That report shows that, while statistically "most" of the surveyed BMPs are implemented most of the time, non-implementation of BMPs is not uncommon. PR 2189. Therefore, non-implementation must be considered reasonably foreseeable and impacts analysis adjusted accordingly.

For example, the 2012 monitoring report shows that culverts on Class I and II streams that should have been removed were left in, fill slopes at culvert removal sites were overly steep, timing restrictions were not coordinated with ADF&G, storage of roads crossing alluvial fans were improperly done, erosion control seeding was not done, fish stream crossings were not adequately inspected, and storage practices were implemented that were not consistent with the ATM, among other problems. PR 2189 at 6-8. Monitoring only occurred on a small percentage of the roads and units that were worked that year, so it is reasonable to assume that problems exist on other projects at a similar frequency. In fact, problems almost surely exist at higher frequency on the unmonitored projects, because part of the monitoring process includes corrective action. Additionally, the EIS reliance on the 98.6% implementation statistic fails to note that almost all of the road-related BMP failures were found in the most recent year, which is the first year that monitoring of road storage has been done.

The BMP monitoring reports also do not monitor most of the applicable BMPs at all. Fish passage obviously is not monitored, otherwise the 40% of all culverts that rank as red would be showing up in the reports. The repeated assurances that BMPs are found to be effective ignores the fact that effectiveness monitoring has generally not tracked sedimentation. See PR 779 (Thompson & Tucker 2007, BMP effectiveness monitoring paper) ("We are not directly monitoring sediment..."); PR 780 (Thompson & Tucker 2010 BMP effectiveness monitoring). So it is broadly misleading for the EIS to assert that BMPs generally are implemented and effective when addressing *specific* problems, such as fish passage and sedimentation, even when the BMPs being implemented don't address those issues.

The fundamental misunderstanding, perpetuated by the EIS analysis, is that BMPs are only ever of limited effectiveness. Perfectly implemented and effective BMPs, do not imply the absence of impacts. See Exh 300a ¶99 – 106.

When a BMP is found to be "effective," that only means it is effective in what it is designed to do. Most of the forest service and State BMPs seek to "reduce" or "minimize" impacts, not to eliminate them.

The declaration of Jon Rhodes (Exh 300), citing numerous studies, explains in some detail how BMPs for roads and landings, especially in proximity to streams, "have very

limited effectiveness.” Exh 300 ¶99. It is all well and good to grass-seed a fill slope, but this is not to say that slope hasn’t or won’t deposit sediment. The GLEC (2008) study of BMP effectiveness is particularly useful because it dispels the myth that BMPs for road construction eliminate cumulative effects or the potential for failure. It is not possible to log and road an area without increasing erosion and sediment delivery. Exh 300 ¶101.

More significant than BMP implementation or effectiveness, is avoidance of the most sensitive areas. Exh 300 ¶102 – 104. In this project area, areas to be avoided would include streams, riparian areas, alluvial fans, and wetlands. Yet the FEIS seems to place roads and units wherever they happen to be most convenient. Often, that means using abandoned or decommissioned roads, even where those intrude on riparian areas.

### ***J. FEIS analysis of Sediment impacts is flawed***

Many of the arguments raised above apply to the FEIS’s flawed analysis of sedimentation impacts. I will not repeat those points here, but there are several other important deficiencies that will need to be corrected in a supplemental or new FEIS.

#### ***1. The FEIS application of the 2.5% threshold is misapplied***

The EIS analysis works from the assumption that sedimentation effects of roads start occurring when 2.5% of a subwatershed is composed of road. This is an invalid assumption. See Exh 300 ¶90 – 93. Research actually shows that incremental increases in fine sediment contribute to reduced production of steelhead, Exh 357 (Suttle 2004), and other salmon and trout species. Exh 300 ¶84;

#### ***2. Fails to consider effect of Class IV streams***

The assumption that Class IV streams, by definition, have no potential impact in terms of increasing sedimentation is wrong. First, as addressed above, these streams have not even been consistently mapped or surveyed, so even the fact of them being Class IV streams is not reliable. Further, it is a certainty that additional Class IV streams will be found and identified after the project is actually laid out. On the recent Tonka timber sale, for example, the Forest Service identified over 100 streams it hadn’t noticed before, that were within cutting units or being crossed by roads. Because no effort is made to map or survey Class IV streams, or to consider road crossings at Class IV streams, the FEIS fails to even provide an accurate index by which to measure road-stream connectivity and resulting sedimentation. Exh 300 ¶15.

But even setting those (major) problems aside, it is simply false that headwater streams don’t deliver sediment to lower reaches. See Exh 300 ¶14, 15. Abundant scientific research shows the importance of these headwater streams to cumulative sediment impacts. In fact, Class IV streams cumulatively input a great deal more water and sediment to downstream reaches, and do so “readily and rapidly.” *Id.* ¶ 14. These streams are not buffered so as to allow continued inputs of LWD, worsening sedimentation problems. See FEIS at 3-275 (acknowledging that wood is influential in storing sediment and inputting organic material in headwaters streams).

#### ***3. The EIS misrepresents scientific studies***

The EIS repeatedly says that a statistical relationship between sediment and watershed disturbance has not been reported in Southeast Alaska studies, citing Bryant et al. 2004 and Woodsmith et al. 2005 for this proposition. See *e.g.* ROD at B-46.

On even a brief examination, those studies say nothing of the sort. Bryant et al. (2004) (see PR 716) actually is a study into the proper use of statistical analysis. The abstract states that, “None of the fish habitat variables we examined were significant at  $\alpha = 0.05$ ; however, several *P*-values were less than 0.10 and consistent differences between harvested and nonharvested reaches were observed among channel types.” PR 716 at 1353. As pointed out by Rhodes, a much higher p-value is warranted. See Exh 300 at FN 6 -8. Woodsmith et al. (2005) is titled “An approach to effectiveness monitoring of floodplain channel aquatic habitat: channel condition assessment.” PR 805 at 177. The paper develops and tests a set of effectiveness monitoring procedures for measuring changes to floodplain channel habitats in Southeast. The abstract to the paper states:

These procedures provide methods of data collection and analysis that, in the context of a statistically defensible sampling protocol, allow for determination of rate and direction of change among different intensities of land use, and thereby evaluation of management strategies. Assessment of channel condition can also contribute to evaluation of both restoration needs and success of restoration activities. Information gained from these procedures, together with information, where available, on watershed and riparian condition and processes and land use history will contribute to interpretation of measured change and its linkage to specific disturbances.

PR 805 at 177.

This is a significant mistake. These misstatements give the false impression that studies have found clearcutting and roads to not have any effect on sediment in Southeast Alaska. The misrepresentation of those papers is repeated several times in the EIS, and in the Watershed and Fisheries resource reports. The misrepresentations are placed immediately before descriptions of the 2.5% and 20% analytical thresholds, giving the impression that the EIS analysis shows an abundance of caution, and leading a decision-maker to conclude that those impacts & thresholds are not really so important.

#### ***4. FEIS fails to analyze cumulative effects of sedimentation, with regard to temperature.***

Among the nefarious effects of increased sedimentation in logged and roaded watersheds are a reduction in deep pools, which provide thermal refugia for fish, and a general shallowing and widening of streams. See Exh 300 ¶81, 83, 85. These processes increase stream temperature, which as discussed elsewhere is a major water quality and fisheries concern in this area. Exh 300 ¶85; FEIS at 3-273 – 74.

#### ***K. FEIS analysis of water temperature impacts is inadequate***

Several of the points raised above are relevant to the EIS treatment of water temperature. I will not repeat them, but a few additional points deserve emphasis.

The EIS does acknowledge that increased stream temperature can be (and is) a problem for fisheries in the project area. FEIS at 3-273 – 75. There have been fish kills in this area related to high stream temperature. It is acknowledged that streams likely exceed water quality criteria for temperature, although measurements have not been taken. However, asserting a lack of a predictive relationship between logging and stream temperature on POW Island, and implementation of buffer strips on Class I – III streams, the EIS asserts that “stream temperature is not likely to be measurably affected by harvest activities.” FEIS at 3-275. As the Rhodes declaration explains, this is an unsupported conclusion that fails to consider a number of important factors. Exh 300 ¶66 – 72.

### **1. “natural” high temperatures don’t obviate need to consider impacts**

The fact that streams, on occasion, exceed temperature thresholds for fish should be cause for more concern not less. The fact there are temperature-related fish kills suggests the issue is a serious one that ought to be carefully considered. As Rhodes writes in his declaration, naturally high water temperature *increases* the likelihood that further increases would result in adverse effects. Exh 300 ¶71. The science, and the law (ie. state water quality standards) are quite clear that hot water is bad news for salmon and trout. See Exh 300 ¶71, 72.

The reliance on background conditions is particularly troubling where, as here, the Forest Service has no data on stream temperature. See Exh 300 ¶67 – 71. It is not possible to evaluate effects without reference points. The solution is to gather information, not to plead ignorance. This information is easily obtainable. Exh 300 ¶67.

The assertion that watershed condition has been evaluated in area subwatersheds is contradicted by the complete lack of any water temperature data. Water temperature is one of the easiest measures to make— indeed schoolchildren commonly take water temperature measurements as a way to learn about stream and lake habitat monitoring. How is it possible the Forest Service has no data on any stream?

### **2. Entirely fails to consider Roads near streams**

The EIS failed to take a hard look at the impact of existing and proposed roads and landings that are in close proximity to streams. As discussed earlier in this section, the FEIS simply fails to ever calculate the number of roads that are built near streams, including Class IV streams, which is a major flaw in considering impacts on temperature. Exh 300 ¶67. The EIS also fails to consider the loss of stream shading at road crossings (including Class IV crossings), which is a permanent effect.

The EIS does disclose the proportion of RMAs that have been logged by subwatershed, which is useful information but not the full story. That measure entirely omits Class IV and quite a bit of Class III streams. It also entirely omits consideration of roads and landings in proximity to streams, where shading vegetation would not be expected to regenerate. Roads and landings in proximity to streams has been repeatedly demonstrated to increase stream temperature through a variety of mechanisms. Exh 300 ¶45. Also, as explained above in section C, the failure to consider road-stream connectivity has important implications to temperature effects, because runoff from roads will, persistently, increase stream temperature.

Nor does the EIS consider the impact of road crossings on water temperature. However, numerous studies establish that road/stream crossings increase water temperature, Exh 300 ¶54, 55, which is a persistent, long-term effect. *Id.* ¶56.

In the face of this wealth of established science, the FEIS relies on a couple studies which failed to find a predictive relationship between logging and roading, and stream temperatures on Prince of Wales Island. See FEIS at 3-275; PR 801. This is unreasonable, and is a conclusion that runs contrary to the evidence before the agency. Additionally, the cited study, Walters & Prefontaine (2005), does not appear to deny that factors such as roads and loss of shading can increase stream temperature. PR 801 at 20 (“Although there was not a significant correlation between harvested RMA acres and temperature exceedence values, this does not show that past harvest of RMA acres has no effect on stream health.”) The study had no background data to test if temperatures changed due to past harvest, although they suggested that such data would be usefully gathered in the future. PR 801 at 12, 20. The study’s findings, that solar radiation and low flows had the strongest relationship with

temperature exceedances, is unsurprising and obvious. The lack of finding a predictive relationship says more about the study design, which by its own admission is in some ways flawed, than it does about the mechanisms by which roads and clearcuts increase water temperature.

### **3. Fails to evaluate cumulative effects in relation to LWD, stream widening and stream habitat features**

As suggested above, and explained by Rhodes, decreased depth and increased width of streams is a foreseeable consequence of sedimentation and peak flow impacts. The EIS however fails to consider this important factor in terms of its effect on water temperature. See ¶81, 83, 85.

Similarly, the EIS fails to draw any connection between stream reaches that are functioning at risk or non-functioning due to lack of LWD and deep pools. Actions that would further increase temperature, such as loss of shading and road-stream connectivity, could be expected to have exaggerated effects on impaired stream reaches.

### **4. Fails to evaluate cumulative temperature effects in relation to climate change**

The secret is out that the world is getting warmer. This is another factor that increases the importance of avoiding actions that unnecessarily increase water temperature, and decrease habitat features (like deep pools) enabling fish to survive. The EIS simply dodges the issue. We think that is short-sighted, given that the effects of this project will be very long-term.

#### **L. FEIS fails to take a hard look at large woody debris impacts**

The existing condition includes a chronic and widespread shortage of LWD, which is having serious negative consequences on area streams. See PR 785, 769, 766, 729, 713. The EIS bluntly concludes that the RMAs in the unit cards would effectively protect fish habitat, that LWD recruitment and spacing would remain, and thus there would be “no” direct, indirect or cumulative effects on fish habitat from this factor. That is wrong, and this is a major omission. Exh 300 ¶73 – 79.

The project would impact LWD in several ways. First, the project would irreversibly eliminate LWD recruitment from areas affected by road construction and reconstruction at stream crossings. See Exh 300 ¶73. Second, the project would eliminate LWD recruitment at other locations that are logged and roaded within one site-potential tree height of streams. *Id.* The relevant measure in terms of LWD is one site-potential tree, which is not necessarily the same as the RMA. *Id.* at 51. Third, the EIS fails to consider the effects of loss of LWD on Class IV streams, where LWD is critical to sediment storage and, to some degree, LWD recruitment. *Id.* ¶61.

The FEIS also fails to come to grips with the past impacts of roads and logging on LWD recruitment. This would include all areas roaded or logged within one site-potential tree of any stream. Exh 300 ¶45, 58, 60. The EIS does disclose the amount of RMA logged by subwatershed, and those levels are strikingly high, but RMA might not be the same as one site-potential tree.

In contrast to the EIS, the Watershed Restoration Plans in the project record invariably show that lack of LWD recruitment is a serious, continuing, and pervasive problem in almost all of the impacted subwatersheds. The EIS completely fails to put together the pieces, and recognize that increased sedimentation, temperature, peak flow and other watershed impacts

are all made worse when the background condition is so seriously deficient in LWD. Channel erosion, for instance, is made worse when the watershed lacks LWD.

#### **M. NMFS Consultation**

The ROD suggests that sending a copy of the DEIS to the NMFS office was, in itself, adequate consultation under the Magnuson-Stevens Fisheries Act. ROD at B-14. However, the notes from a February 25, 2013 phone conversation, between Delilah Brigham (USFS) and Cindy Hartmann (NMFS) more clearly stated that although NMFS had gotten the document and not written comments in response, NMFS “wanted it recorded that that doesn’t mean that NMFS didn’t have concerns with the project...” PR 580. Consultation must be in good faith, and under NEPA these comments should have been revealed.

### **IV. OLD-GROWTH HABITAT RESERVE MODIFICATIONS**

#### **A. The Forest Service Did Not Follow the Public Process Requirements Under NEPA.**

From the outset of the Big Thorne project, the Forest Service has failed to allow for adequate public participation in the drafting and finalization of the modifications to the Old Growth Reserve (OGR) units. This began with the scoping of the project, where the Forest Service failed to provide notice that OGR modifications were being contemplated by the agency. Next, the Forest Service failed to present the selected OGR modifications as an alternative in the Environmental Impact Statement (EIS), which denied the public the opportunity to comment on the selected modifications during the Draft EIS commenting period. Finally, the Forest Service failed to provide the public with analysis of how the OGR modifications selected under the Record of Decision (ROD) provide a “comparable achievement” of the Old-growth Habitat Land Use Designation’s (LUD’s) goals and objectives as required by the law.

##### **1. The Forest Service Did Not Provide Adequate Notice and Evaluation of the Proposed Old-Growth Reserve Modifications During the Scoping Phase of the Project.**

First, the Forest Service failed to provide notice during the scoping phase of the project that the OGR modifications were being contemplated as part of the overall project. The February 9, 2011 scoping letter provided no indication that the Forest Service intended to designate areas previously reserved for wildlife to timber production LUDs. The public, therefore, was not given any opportunity to comment on the OGR modifications at the scoping stage of the project.

This failure to inform the public of the proposed modifications to OGRs violates the public disclosure and involvement requirements of NEPA. The Forest Service is required to engage the public in a scoping process for every project considered by the agency.<sup>25</sup> The scoping process “shall be an early and *open* process for determining the scope of the issues to be addressed and for *identifying significant issues* related to a proposed action.”<sup>26</sup> The scoping

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<sup>25</sup> 40 C.F.R. § 1501.7; Forest Service Handbook (FSH) 1900.15; (National Environmental Policy Act Handbook), Chapter 31.3.

<sup>26</sup> 40 C.F.R. § 1501.7 (emphasis added).

process “ensures that interested parties are aware of and therefore are able to participate meaningfully in the entire [NEPA] process, from start to finish.”<sup>27</sup>

If “substantial changes are made later in the proposed action, or if significant new circumstances or information arise which bear on the proposal or its impacts,” the Forest Service must reopen the scoping process and revise the determinations to be made after consultation with the public.<sup>28</sup> This is precisely what happened here, where the possibility of modification to OGRs was not brought to the public’s attention until the Draft Environmental Impact Statement (DEIS) was issued in October 2012.

The Forest Service says that the proposed OGR modifications were added as a response to comments made during the scoping period of the project, and that because the OGR modifications were presented only as part of an alternative in the EIS, there is no need to reopen the scoping process.<sup>29</sup> This simply is not the case. As part of the scoping process, the Forest Service was required to determine the significant issues for the overall project. It determined in the FEIS that one of the four significant issues regarding the project as a whole is the modification of Old-growth Habitat LUDs.<sup>30</sup> This was no minor addition to one of the many alternatives; it was a significant change to the scope of the project as a whole. As such, NEPA requires that interested parties be able to meaningfully participate on this issue throughout the *entire* process.<sup>31</sup> By not re-scoping the project after OGR modifications were added to the project, the Forest Service has failed to comply with the requirements of NEPA.

**2. The Selected OGR Modifications are Significantly Different from Any of the Proposed Alternatives in the EIS; So Much So that the Public had No Way to Meaningfully Evaluate the Selected Modifications.**

The selected OGR modifications, as described in the ROD, are not discussed in the FEIS or any previous materials. The Forest Service claims that the selected action is a modified version of Alternative 3. While Alternative 3 did present a proposal that would modify the OGRs, the selected action is altogether different from Alternative 3 or any of the others. The selected OGR modifications described in the ROD differ so significantly from the proposal under Alternative 3 that the analysis of Alternative 3 in the FEIS is not useful for understanding the decision set forth in the ROD.<sup>32</sup> The FEIS explicitly says that many of the OGR modifications proposed under Alternative 3 would not provide a “comparable achievement” of the Old-growth Habitat LUD goals and objectives—the key determination of whether any OGR modification is warranted.<sup>33</sup> The FEIS, however, does not contain an

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<sup>27</sup> *Kootenai Tribe of Idaho v. Veneman*, 313 F.3d 1094, 1116-17 (9th Cir. 2002) (citing *Northwest Coalition for Alternatives to Pesticides v. Lyng*, 844 F.2d 588, 594-95 (9th Cir. 1988)).

<sup>28</sup> 40 C.F.R. § 1501.7(c).

<sup>29</sup> Transcript of Big Thorne IDT Meeting, April 14, 2011. (“[OGR modifications are] an alternative, not a change to the proposed action....Alternatives are, simply put, other ways to accomplish the proposed action while meeting the purpose and need.”).

<sup>30</sup> Big Thorne FEIS at 1-12.

<sup>31</sup> *Kootenai Tribe*, 313 F.3d at 1116-17.

<sup>32</sup> The fact that the FEIS itself says that Alternative 3 does not provide a comparable achievement of the Old-growth Habitat LUD goals and objectives is proof enough that the selected action—which the Forest Service purports to provide a comparable achievement—is starkly different from what was presented in the FEIS.

<sup>33</sup> Big Thorne FEIS at 3-55.



analysis of the actual alternative selected by the Forest Service in the ROD and therefore the public and decision maker have no way to determine whether this alternative – the one chosen by the Forest Service – complies with the law.

Moreover, as shown in more detail below, the Forest Service has not ever provided analysis as to the environmental effects of the selected OGR modifications. In essence, the public was not made aware of the selected action until the publication of the ROD, and thus the Forest Service never gave the public the opportunity to comment on the selected action.

This failure to disclose the selected action until the ROD violates the letter and spirit of the public participation requirements of NEPA. By failing to disclose the selected alternative in a transparent and timely fashion, the Forest Service has insulated its decision from public scrutiny while at the same time spent the time and effort of its specialist staff on an illegal approach to management. Before the agency proceeds any further down this misguided road, it must reopen the EIS process to allow for fully informed public participation at all stages of the NEPA process.

### ***3. The Forest Service Has Not Shown How the Proposed OGR Modifications Provide a Comparable Achievement of Old-Growth Habitat LUD Goals and Objectives.***

The management prescriptions for the Old-growth Habitat LUD require that any modification to an OGR provide a “comparable achievement” of the Old-growth Habitat LUD goals and objectives.<sup>34</sup> To determine what constitutes a “comparable achievement,” the Forest Service is tasked with looking at the criteria set forth in Appendix K of the 2008 Forest Plan and Appendix D of the 2008 Forest Plan FEIS. These criteria include acreage minimums as well as “general design criteria” that factor in wildlife habitat requirements and other environmental needs.<sup>35</sup> Here, the Forest Service reached the conclusion that the modified OGR locations will provide “comparable achievement of the Old-growth Habitat LUD goals and objectives.”<sup>36</sup> However, it has failed to show its work. The Forest Service does not provide any analysis as to how or even whether the general design criteria of Appendix D have been followed.

The reason for this lack of analysis is that the Forest Service has chosen as its selected action an alternative that was never set forth in the DEIS or FEIS. The Big Thorne Project FEIS analyzes the impacts of five alternatives, specifically comparing each in terms of the general design criteria in Appendices D and K,<sup>37</sup> but it has failed to provide the same level of analysis for the selected action.

The missing analysis plays out quite clearly in regards to deer winter habitat. The general design criteria for OGRs, as laid out in Appendix D of the 2008 Tongass Land Management Plan (“Forest Plan”) FEIS, includes deer winter habitat as an important factor to consider in OGR design.<sup>38</sup> The Big Thorne FEIS analyzed the impact each alternative OGR modification would have on deer winter habitat on an individual unit level.<sup>39</sup> Therefore, the public is able to see that in, for example, VCU 5800, the OGR modifications proposed under Alternative 3

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<sup>34</sup> 2008 Forest Plan at 3-62.

<sup>35</sup> 2008 Forest Plan FEIS, Appendix D

<sup>36</sup> Big Thorne ROD at 15; Big Thorne ROD, Appendix 3 at A3-1.

<sup>37</sup> Big Thorne FEIS at 3-55-59.

<sup>38</sup> 2008 Forest Plan Final EIS, Appendix D at D-8.

<sup>39</sup> Big Thorne FEIS at 3-55.

would result in 137 acres of deer winter habitat loss, and the FEIS is explicit in noting that this much habitat loss does not represent a comparable achievement.<sup>40</sup>

However, the ROD has selected OGR modifications for VCU 5800 different from the modifications proposed under Alternative 3 in the FEIS. The ROD fails to give specifics as to the size of the selected modification, let alone whether general design criteria are met. Specifically, nowhere in the FEIS or the ROD has the Forest Service analyzed the deer winter habitat loss in VCU 5800 under the selected action. To be sure, the number of acres being moved to development LUDs are fewer under the ROD than under Alternative 3, but without detailed analysis as to the characteristics of the habitat being lost under the ROD, it is impossible to determine the number of deer winter habitat acres being lost or whether the modified OGRs present a “comparable achievement.”

Deer winter habitat is by no means the only design criteria that the Forest Service has failed to analyze under the selected action. The Forest Service has failed to show that any of the Appendix D general design criteria are met under the selected action.<sup>41</sup> Table OGR-2 of the FEIS quite clearly shows that Alternative 3—without modification—would not result in a comparable achievement of Old-growth Habitat LUD goals and objectives. The Forest Service ostensibly modified Alternative 3 so that it could proceed under Alternative 3 while still providing a comparable achievement of the Old-growth Habitat LUD goals and objectives. The problem is, its modifications were actually significant changes to Alternative 3, and there is no indication that the changes made indeed go far enough to provide a comparable achievement. Without this analysis, the Forest Service’s conclusion that the selected OGR modifications present a “comparable achievement of the Old-growth Habitat LUD goals and objectives” is nothing more than a conclusory statement that was not disclosed and discussed in the FEIS and is not supported by the record.

By failing to provide a complete, transparent analysis of whether the selected OGR modifications result in a comparable achievement of the Old-growth Habitat LUD goals and objectives, the Forest Service has insulated its decision from public scrutiny and prevented the public from having an open view into the decision-making process. NEPA requires, at a minimum, that an agency provide the public with the reasoning behind the decisions it makes. Otherwise, any decision is viewed as arbitrary. Without more than a conclusory statement that the modified OGRs provide a “comparable achievement,” the Forest Service has acted arbitrarily here.

***B. The Forest Service Has Not Analyzed the Impacts of Taking Biologically Preferred Areas Out of the OGR network and Replacing them with Already Protected Inventoried Roadless Areas.***

Inventoried Roadless Areas (IRAs) subject to the development restrictions of the 2001 Roadless Rule<sup>42</sup> comprise approximately 40 percent (92,232 acres) of the Big Thorne’s project area.<sup>43</sup> Over 35,000 acres within the IRAs in the project area are currently mapped as part of

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<sup>40</sup> *Id.*

<sup>41</sup> The ROD actually points back to Table OGR-2 of the Big Thorne FEIS in support of the selected modifications. Big Thorne ROD at 16 (“A comparison of the criteria considered is listed in Table OGR-2 of the FEIS.”). It is unclear why the Forest Service made this reference, however, because the analysis in Table OGR-2 is not applicable to the selected action due to the significant modifications that were made to Alternative 3.

<sup>42</sup> 36 C.F.R. §§ 294.10 -.14 (2001).

<sup>43</sup> Big Thorne FEIS at 3-494.

development LUDs under the Forest Plan.<sup>44</sup> However, pursuant to the Alaska District Court’s decision in *Organized Village of Kake v. U.S. Dept. of Agriculture*,<sup>45</sup> which vacated the Tongass exemption to the Roadless Rule, these development units within IRAs will still be protected from development.

Here, the Forest Service has decided to modify the OGR network by moving several small OGRs out of the biologically preferred locations and into these IRAs.<sup>46</sup> The result will be the removal of approximately 543 of the biologically preferred acres out of OGR areas, with approximately the same acreage of IRAs currently listed under one of the development LUDs being moved into the Old-growth Habitat LUD.<sup>47</sup>

The practical implications of these changes, however, are much different. Because the Tongass exemption to the Roadless Rule has been vacated, these inventoried roadless areas are already protected from development, regardless of whether they are designated as a non-development LUD or not. Designating these roadless areas part of the OGR network gives these areas no extra protection; it simply gives them a new name. What it does do, however, is allow for the Forest Service to redesignate roaded areas from non-development LUDs to development LUDs. By placing IRAs within the OGR network while keeping the total acreage within the OGR network constant, the overall number of acres protected throughout the forest is decreased.

In short, the practical implication of this maneuvering is the loss of old-growth habitat—habitat that has been named the biologically preferred location for OGRs—to timber development, and the impacts of this are likely to be significant. As Under Secretary Harris Sherman noted in 2011:

Replacing the old growth reserve areas with an equal number of acres from somewhere else within the forest does not resolve the effects on the land management plan’s conservation strategy; the location and design of the old growth reserve network is critical to the success of the conservation strategy.<sup>48</sup>

The Forest Service has not provided the public with any analysis of the impact these changes will have on the ecosystem as a whole, or on the entire OGR network. Nor has it been particularly transparent regarding the practical implications of moving IRAs into the OGR network, including whether these particular substitutions are a “comparable achievement”.

Finally, Step 2 (“Decision Process”) in Appendix K requires that “[t]he interagency team will work with the decision maker to develop alternate proposals, if necessary to meet other Forest Plan objectives. The implemented OGR must meet the minimum criteria as described

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<sup>44</sup> *Id.*

<sup>45</sup> 776 F. Supp. 2d 960 (D. Alaska 2011)

<sup>46</sup> The “biologically preferred areas” refer to those areas recommended for OGR designation by the Interagency Review Team (IRT). The IRT met to review the proposed OGR modifications, and it set out its recommendations in a report issued April 2013. The recommendations in the report—which mostly recommended no changes to the existing OGRs—are the biologically preferred areas. See Interagency Old Growth Review Report, Big Thorne Project, April 2013.

<sup>47</sup> Big Thorne ROD at 7.

<sup>48</sup> *Southeast Alaska Land Entitlement Finalization and Jobs Protection Act: Hearing on S.730 Before the Subcomm. on Pub. Lands and Forests of the S. Comm. on Energy and Natural Res.*, 112th Cong. 4 (2011) (statement of Harris Sherman, Under Secretary, Natural Resources and Environment, United States Department of Agriculture).

below.” There is no evidence in the planning record that this was done for the OGR modifications made in the ROD.

***C. The Forest Service Has Failed to Provide Analysis of the Site-Specific Environmental Impacts to the Previous OGR Units that are Being Moved to Development LUDs.***

In developing the OGR system, the Forest Service included in the Forest Plan several site-specific factors as part of the general design criteria for OGRs.<sup>49</sup> The intent of the reserve system is to help ensure the maintenance of well-distributed viable populations of all old-growth associated wildlife species across the Tongass, and these site-specific factors were considered “to help meet multiple biodiversity or wildlife habitat objectives.”<sup>50</sup> The record fails to provide analysis of the site-specific environmental impacts in the previous old-growth habitat LUDs that will be moved to development LUDs, and as such, it is unclear whether such impacts were taken into account or even what the impacts are.

One specific factor mentioned is the importance of maintaining important deer winter habitat.<sup>51</sup> While the Forest Service makes clear that the new OGR areas “provide a comparable achievement of the Old-growth Habitat LUD goals and objectives,”<sup>52</sup>—an assertion we contend above is not true—there is no indication that it considered the site-specific environmental impacts on the areas that are being moved out of OGR designation. For example, deer winter habitat capability is predicted to be reduced over the entire project area by way of the modified OGRs,<sup>53</sup> but it is unclear from the EIS and ROD what the effects will be at each modified OGR site. Moreover, the FEIS appears to ignore the potential for additional site-specific impacts that could occur from the logging of additional acreage that has been removed from the OGR but which is not included as a logging unit in the Big Thorne project.

The lack of information regarding site-specific impacts affects more than just deer. According to the FEIS, current estimates of Alexander Archipelago Wolves are lacking within Game Management Unit (GMU) 2.<sup>54</sup> Without knowing how many wolves inhabit the area in which the OGR modifications will take place, it is impossible to know what the impacts of changing current old-growth habitat LUDs to development LUDs will be. The Forest Service has not indicated anywhere that it took such considerations into account when it chose to move OGRs away from the biologically preferred areas.

***D. There are No Explanations of Why OGR Modifications were Undertaken and How They Fit Within the Reasons for Review Laid Out in Appendix K of the Forest Plan.***

The Forest Service has stated that its reason for undertaking the OGR modifications within the project area is to move 2001 Roadless Rule inventoried roadless areas into the OGR network, so that old-growth forest stands that are presently protected by being in OGRs (but are in or near roaded areas) can be added to adjacent development LUDs where logging and roading are allowed.<sup>55</sup> However, Appendix K of the Forest Plan lays out four

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<sup>49</sup> 2008 Forest Plan Final EIS, Appendix D at D-7.

<sup>50</sup> *Id.*

<sup>51</sup> *Id.* at D-8.

<sup>52</sup> Big Thorne ROD, Appendix 3 at A3-1

<sup>53</sup> Big Thorne ROD at 12.

<sup>54</sup> Big Thorne FEIS at 3-113.

<sup>55</sup> Big Thorne ROD, Appendix 3 at A3-2

circumstances where an OGR modification is necessary, and the Forest Service has failed to explain how these modifications fit into any of the four circumstances. Appendix K states that only “[u]nder limited circumstances [may a] line officer \* \* \* decide to modify the size and location of an OGR. It contemplates these circumstances:

- A. The project occurs in [certain VCUs that are lacking critical site specific information.]
- B. Site-specific information for a small OGR indicates that the OGR habitat criteria are not met in the mapped location.
- C. Actions are proposed within the OGR that will reduce the integrity for the old-growth habitat in the OGR.
- D. The OGR will be affected by a land conveyance, power line, mine, or other project that was not considered in the Forest Plan...<sup>56</sup>

The Forest Service fails to name the listed circumstance under which the proposed modification fits. As such, it is unclear as to why such a modification is necessary and consistent with the circumstances for OGR modification laid out in Appendix K. By failing to tie the proposed modifications back to one of these listed circumstances for when OGR project level review is necessary, the Forest Service has not complied with the requirements of Appendix K.

## **V. Concerning Deer, Wolves and Hunters**

### **A. The Record of Decision violates the National Forest Management Act, because the Forest Service has failed to explain how the project complies with wildlife standard XIV.A.2, which applies to management of Alexander Archipelago Wolves.**

The proposed logging of old-growth forest associated with the Big Thorne project and, in particular, the proposed clearcutting of low- and mid-elevation, high-quality deer winter habitat, threatens to create severe imbalances in the predator-prey relationship of Prince of Wales Island. While the old growth reserves are an important component of an overall strategy to protect deer and wolves (and we discuss the flaws in the agency’s treatment of OGR’s elsewhere in this appeal), the Tongass Land Management Plan also imposes enforceable standards and guidelines within the matrix to ensure that these areas continue to provide adequate functional habitat to sustain biological diversity and populations of old-growth dependent species over time.

Here, the Forest Service has planned extensive clearcutting of the little remaining high value deer winter habitat left on Prince of Wales Island. The FEIS describes alternative 3 as involving timber extraction from 6,706 acres of old-growth forest at or below the 1,500 ft in elevation.<sup>57</sup> It appears that there were certain changes to the layout of the timber sale units, but we have been unable to locate precise figures in the Record of Decision for how many acres of deer winter habitat would be logged under the decision. The ROD, in contrast to the

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<sup>56</sup> Forest Plan, Appendix K at K-1-2.

<sup>57</sup> FEIS at 3-167, Table WLD-20.



FEIS, does not set forth in plain terms how much low- and mid-elevation deer winter habitat will be logged.

Comparing Table ROD-8 with WLD-26, the decision appears to have a similar negative impact on deer habitat carrying capacity as compared with Alternative 3 in the FEIS, however, we are unable to provide a direct comparison without further information that has not been included in the ROD.<sup>58</sup>

Although there are certain shortcomings in the information provided in the ROD, it is clear that the planned activities set forth in the ROD threaten to violate the substantive standard and guidelines of the Tongass Land Management Plan. The Forest Service has failed to set forth a rational explanation as to whether or how it determined that this project complies with the Forest Plan requirements.<sup>59</sup>

Forest Plant S&G WILD XIV.A.2 sets forth the following requirements:

Provide, where possible, sufficient deer habitat capability to first maintain sustainable wolf populations, and then to consider meeting estimated human deer harvest demands. This is generally considered to equate to the habitat capability to support 18 deer per square mile (using habitat capability model outputs) in biogeographic provinces where deer are the primary prey of wolves. Use the most recent version of the interagency deer habitat capability model and field validation of local deer habitat conditions to assess deer habitat, unless alternative analysis tools are developed. Local knowledge of habitat conditions, spatial location of habitat, and other factors need to be considered by the biologist rather than solely relying on model outputs.<sup>60</sup>

The Record of Decision for Big Thorne provides results of the deer model analysis and demonstrates that the deer habitat carrying capacity for the North Central Prince of Wales biogeographic province will be: (1) 17.73 deer/mi<sup>2</sup> for only non-NFS lands immediately after implementation, dropping even further to 17.23 deer/mi<sup>2</sup> as the stem exclusion stage develops; and (2) 14.4 and 14.0 deer/mi<sup>2</sup> for all land ownerships in aggregate immediately after implementation and at stem exclusion respectively.<sup>61</sup> Furthermore, all four of the WAA's will be below 18 deer/mi<sup>2</sup>, both for NFS-only lands and for the WAA as a whole, and the same is true at the biogeographic province scale.<sup>62</sup> The Record of Decision therefore

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<sup>58</sup> Table ROD-8 does *not* reflect cumulative impacts despite representations to the contrary in the ROD. This is because non-NFS lands were assumed to have zero habitat capability in 1954. See FEIS at 3-176, 2<sup>nd</sup> bullet. ("For the cumulative effects analysis ... habitats on non-NFS land ... receiving a zero value.") NFS lands most certainly provided deer winter habitat in 1954, likely extensive habitat. By assuming otherwise, the analysis in the ROD masks the cumulative effects of past harvest on those lands. We also note, apart from this fundamental flaw, that the figure in table ROD-8 for WAA 1319 for the "% of 1954" row (i.e. 95%) appears to be incorrect, and a value of "XX" is provided for WAA 1420.

<sup>59</sup> See *Earth Island Inst. v. Carlton*, 626 F.3d 462, 470 (9th Cir. 2010) (holding that the Forest Service must "explain the conclusions that it has drawn from its chosen methodology, and the reasons it considers the underlying evidence to be reliable").

<sup>60</sup> 2008 TLMP at 4-95.

<sup>61</sup> ROD at 27-28. We strongly encourage the Forest Service to focus on the figures for all lands, because it is the cumulative effect that dictates the biological impacts. The results for NFS-only lands within a WAA or analysis area portray in a misleading way "the relationship between short term uses of man's environment and the maintenance \* \* \* of long-term productivity." (40 C.F.R. §1502.16). For instance, if a WAA included only 50% NFS lands, an analysis that focused solely on these lands would fail to provide a realistic assessment of whether the WAA could support a functioning wolf pack, because the NFS lands are simply too small (or otherwise unrepresentative) on their own to do so.

<sup>62</sup> Tables ROD-7 and ROD-8.

appears to violate a straightforward numeric requirement in the TLMP that sets forth the minimum deer carrying capacity in the biogeographic province.

The implications of this violation are important, because as has been well documented in the literature, actual deer numbers are unpredictable once the habitat carrying capacity falls below the 18 deer/mi<sup>2</sup> threshold.<sup>63</sup> An incremental reduction in carrying capacity below this level is likely to precipitate a much larger effect on deer populations, because of the non-linear dynamics associated with the predator-prey system once the relationships have been thrown out of balance. The Forest Service does not appear to have disclosed in the FEIS the significance of logging areas that are below the 18 deer/mi<sup>2</sup> threshold given these well-known characteristics of the predator-prey relationship – i.e. the nonlinear response of actual deer populations in these areas. Also, the problem is of greater importance when it occurs over a large geographic scale (as in the POW case) than if it were to occur in just one or a few from among the many WAAs therein.

We also reiterate a concern that we have expressed many times, namely that the deer model is based on an average winter and does not account for stochastic events and particularly severe winters associated with deep snow packs.<sup>64</sup> Even if the Forest Service were providing a carrying capacity of 18 deer/mi<sup>2</sup> (or not further diminishing the carrying capacity, if already below that level), which is not the case, this would still not address risks presented by unusually heavy winters. That periodic record-setting winter snowpacks should be anticipated in planning Tongass projects is discussed in our section on climate change, and this likely reality is related to the region's geophysical situation including its coastal location. The Forest Service needs to examine data and studies from past severe winters from the 1970s and more recently, which have had documented impacts on deer populations, and to include that information in its analysis of whether the project as implemented will leave enough reliable winter habitat for deer. This needs to include either modifying the deer model to give results for a severe winter or applying some manner or factor of safety to results of the current deer model.

The Forest Service claims that “nearby WAAs with higher deer densities (e.g. WAAs 1323 and 1332) would continue to support wolves in the vicinity of the project.”<sup>65</sup> The ROD, however, does not explain how the Forest Service reached this conclusion (e.g. the Forest Service does not discuss habitat carrying capacity for the other WAAs relied upon). The lack of analysis in support of this assertion is particularly problematic, because the Forest Service recently conducted an updated deer model run for WAA 1332 in conjunction with the Soda Nick project, which is currently on remand to the agency from the Ninth Circuit Court of Appeals. The Forest Service found that the current habitat capability in WAA 1332 is only 13 deer/mi<sup>2</sup> and that this will fall to only 12 deer/mi<sup>2</sup> at the stem exclusion stage – and this is

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<sup>63</sup> Person et al. 1997; Person 2001; Person et al. 2001; Bowyer et al. 2005. These are, respectively (in folder 736\_2241a unless otherwise noted): a named but unnumbered exhibit; Exh-28; Exh-72 submitted with this exhibit; and Exh-30.

<sup>64</sup> **(1)** Exh-34 (submitted with this appeal): Person & Brinkman 2013. “Succession debt and roads: short and long-term effects of timber harvest on a large mammal predator-prey community in Southeast Alaska.” In: Orians, G., and J. Schoen (eds) Ecology and conservation of north Pacific rainforests. University of Washington Press, Seattle, WA, USA. **(2)** Exh-38 in folder 736\_2241a, State of Alaska, 2007 TLMP DEIS comments at 21 (pdf page 27). **(3)** TLMP planning documents 603\_1234 at 4 and \_1609 at 125-126. **(4)** “Exh-12.55 (revised 8-15-13),” Submitted with this appeal. **(5)** Person et al. 1996 (736\_0302).

<sup>65</sup> ROD at 28.



for the no action alternative.<sup>66</sup> If the Forest Service had attempted to support its claim with any analysis, it would have disclosed to the public and the decision maker that its assumptions are, in fact, wrong.

In addition to this lack of analysis, the TLMP does not permit the Forest Service to rely on this vague sense of averaging without any quantification of overall habitat capability as it relates specifically to wolves. ADF&G area biologist Richard Lowell recently addressed this in terms of the Tonka timber sale project, regarding a conceptual claim also included in the Big Thorne FEIS and ROD. He quoted the Tonka EIS as saying:

“wolves may alter their prey base or move to other areas with higher deer densities within the bio-geo province,”

and he then commented that

“[t]o suggest that wolves can just change their diet, or move to other areas with higher deer densities within the bio-geo province, simply defies basic biology! Wolves are territorial, and to suggest that they just move in with their neighbors, is ridiculous. Even so, where exactly within the Mitkof/Kupreanof bio-geographical province can we expect displaced wolves to find ‘other areas with higher deer densities’?”<sup>67</sup>

The Forest Service has also failed to articulate a rational explanation for whether or why “[l]ocal knowledge of habitat conditions, spatial location of habitat, and other factors”<sup>68</sup> demonstrate that sufficient deer habitat capability will be provided to maintain wolf populations and to meet human harvest demands. In fact, all of the available information on local habitat conditions suggests that the project will not provide sufficient deer winter habitat to support either wolves or subsistence users

Additional local knowledge that the Forest Service should take into account includes:

- The fact that this timber sales would, in the words of Dr. Dave Person, “remove the most important winter habitat for migratory deer in the [Thorne] watershed;”<sup>69</sup>
- “Many of the productive stands to be removed are situated above older clearcuts and are locally known for supporting deer during normal winters”;<sup>70</sup>
- Wolf populations in the Game Management Unit (GMU) 2 and the Big Thorne planning area have experienced recent declines resulting from loss of deer winter habitat and mortality from legal and illegal hunting;<sup>71</sup> and
- Deer populations have declined recently in GMU 2 as a result of severe winters, with unlogged areas supporting higher numbers of deer as compared to unlogged areas.<sup>72</sup>

All of this information on local habitat conditions and wolf populations is relevant to the analysis under the Forest Plan standard and can only suggest that habitat conditions are, in fact, worse than predicted by the deer model alone (or even in combination with the minimal

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<sup>66</sup> Exh-64 (submitted with this appeal) Soda Nick Supplemental Information Report at 12.

<sup>67</sup> Exh-66 (submitted with this appeal). Nov 29, 2011 e-mail to another ADF&G habitat biologist.

<sup>68</sup> Big Thorne Wildlife & Subsistence report at 15. *See also* similar claims about “local knowledge of habitat conditions” (*id.* at 37; ROD at 24; and FEIS at 3-114).

<sup>69</sup> Person, e-mail of Feb. 28, 2011. (In: “Exh-12.55 (revised 8-15-13)”, submitted with this appeal).

<sup>70</sup> *Id.*

<sup>71</sup> Exh-79 (submitted with this appeal) Person Dec’l. at ¶13(a).

<sup>72</sup> Exh-67 (submitted with this appeal) Brinkman et al. 2011; Exh-79 Person Dec’l. at ¶22.

statistics in the FEIS on loss of POG, deep snow and average snow habitats). These concerns have been raised consistently for years by us and others, beginning with the expert wolf panel conducted during planning for the 1997 TLMP.<sup>73</sup>

- “Q: thoughts from other panelist? A: problem is to what degree we can believe habitat capability model. not entirely confident that it reflects some of possibilities. deer model is summation of fragmented habitat. get same result from blocks of old growth. Juxtaposition is not accounted for. severe winters not a factor.”
- “Q: in deer model is it possible to produce comparable set of numbers for what would happen in a bad winter? habitat capability is long-term K, need to look at stochastic events. A: for second growth everything goes to 0 if done for a severe winter. old growth reduced by 50% in severe winter.”
- “Q: wouldn’t patch size and dynamics effect overwinter survival? A: isolated patches cause deer to pack in and mortality increases. C:<sup>74</sup> in bad winter deer numbers go from 13 to 5 deer per sq mile. C: model as it stands now does not address spatial issue. \* \* \* C: if we used severe winter results numbers may change. C: reduction would not be equivalent among alts.”<sup>75</sup>

The Forest Service must articulate a rational connection between these facts and its decision to approve the Big Thorne project, which was not been done to date in the Record of Decision.

Moreover, the agency’s own conclusions on how the Big Thorne project may affect deer habitat also runs directly counter to its decision to authorize the Big Thorne project despite the requirements of WILD XIV.A.2. The ROD acknowledges that “[r]eductions in habitat capability in combination with periodic severe winters may result in a local decline in the deer population, particularly given the recent declines observed on Prince of Wales Island, which could limit the number of deer available to wolves and subsistence hunters.”<sup>76</sup> Reduced deer numbers will reduce the prey available to wolves and therefore the ROD concludes that there “will be some reduction in the availability of the project area WAAs to maintain a sustainable wolf population \* \* \*.”<sup>77</sup>

The ROD is therefore arbitrary, because: 1) it concludes that the project will violate the numeric requirement of the applicable standard and guidelines; 2) all information on local conditions documents that the project will reduce deer habitat carrying capacity below that needed to maintain sustainable wolf populations; and 3) the Forest Service admits that the project will caused reduction in deer populations with associated impacts on wolf viability. The Forest Service has failed to explain how the decision to authorize the Big Thorne project is consistent with the Forest Plan Standard WILD XIV.A.2, which requires the Forest Service to provide “sufficient deer habitat capability to first maintain wolf populations \* \* \*.” The ROD appears to admit that the project will not do so here.

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<sup>73</sup> See also individual peer reviews of the model in Kiester & Eckhardt (1994) (Exh-29 in folder 736\_2241a), as well as our prior comments on other projects and this one, and comments by ADFG in the State’s 2007 comments on the TLMP DEIS (Exh-38 in the above folder).

<sup>74</sup> C means comment.

<sup>75</sup> Robertson 1997, notes of the official scribe for the Forest Service’s TLMP expert panel on wolves. Exh-36 in: folder 736\_2241a.

<sup>76</sup> ROD at 25.

<sup>77</sup> ROD at 26.

We are particularly concerned not only that the Forest Service ignores deer model results from the biogeographic scale of analysis, but that the agency then compounds that problem by impliedly adopting a highly suspect, and to date never before fully articulated, interpretation of the Forest Plan language. We believe this interpretation to be contrary to the National Forest Management Act and the plain language of the Forest Plan, and that it demonstrates that the overall Tongass Land Management Plan, as applied by the Forest Service on a site-specific basis, fails to provide adequately for the viability of the wolf.

Standard WILD XIV.A.2 states that the Forest Service must provide sufficient deer habitat capability “where possible.”<sup>78</sup> The key question is how the Forest Service interprets and applies this “where possible” language of the Forest Plan.

In the ROD, the Forest Service states that “none of the project area WAAs support 18 deer per square mile (FEIS Table WLD-5 and Alt 1 in Table WLD-26). This suggests that, based on modeled deer densities alone, the project area WAAs may not be capable of sustaining wolves without immigration from neighboring areas.”<sup>79</sup>

The Forest Service must clearly articulate how it is interpreting and applying the Forest Plan standard. The Forest Service is approving substantial logging of deer winter habitat in areas that already fail to provide enough deer to meet the needs of both wolves and subsistence hunters, as reflected by the fact that all of the WAAs already fall below the 18 deer/mile<sup>2</sup> threshold for carrying capacity. To the best of our knowledge there is no other information which counters the model results to indicate that – after implementation of the project (particularly at the stem exclusion stage and in view of the remaining succession debt from past logging) – these areas would be able to support enough deer to meet the needs of wolves and subsistence hunters. The question, therefore, is how, based on the language of WILD XIV.A.2, the Forest Service can reconcile those facts with the decision to approve yet further logging of these already degraded areas.

One possibility, and the one that may have been adopted here, is that the Forest Service does not interpret the 18 deer/mi<sup>2</sup> standard to apply in areas that already fall below that standard – ostensibly because of the “where possible” language. In other words, it is not “possible” to provide for a habitat carrying capacity of 18 deer/mi<sup>2</sup> because that habitat capability does not currently exist on the landscape. And, if an area is below the 18 deer/mi<sup>2</sup> threshold, then there is simply no numeric standard that applies in areas of the matrix, and the Forest Service can continue to authorize additional clearcut logging of deer winter habitat without running afoul of the numeric standards and guidelines of the Forest Plan.

A more appropriate interpretation of the Forest Plan language is that the Forest Service cannot authorize *any* additional logging once an area has fallen below the 18 deer/mi<sup>2</sup> standard. The plain language of the plan may allow the Forest Service some flexibility to assess whether an area provides enough deer habitat to meet the needs of both wolves and subsistence users based on other information, including local knowledge of habitat conditions. But the Forest Service has not set forth that explanation in the ROD, instead conceding that deer numbers will decline with associated impacts to wolf viability.

We are also concerned in this regard because the ROD and the FEIS document that existing deer habitat capability for the North Central Prince of Wales Biogeographic Province

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<sup>78</sup> 2008 TLMP at 4-95.

<sup>79</sup> ROD at 25. The statement is internally inconsistent. If immigration is necessary to have a wolf population in the area, the area is dependent on other areas and is therefore NOT “capable of sustaining” a population.

on all land ownerships is 14.6 deer/mi<sup>2</sup>.<sup>80</sup> The ROD then authorizes activities that will reduce that carrying capacity even further, down to a capability of 14.0 deer/mi<sup>2</sup> at stem exclusion. That is a loss of 4%, bringing the capability down to a level 22% below the standard and guideline requirement. It must be borne in mind, however, that the impact of this loss is bound to be greater than those percentages suggest, because of the non-linearity of this predator/prey/habitat ecosystem, as we have already explained. How can the Forest Service authorize this additional logging of deer winter habitat given these figures and the plain language of the TLMP standard and guideline? That explanation has not been set forth in the decision document.

A final possibility – again one that has not been set forth by the Forest Service – is that the agency is depending upon 1954 conditions to determine whether it is “possible” to provide 18 deer/mi<sup>2</sup> habitat capability. With respect to this issue, we note that the Forest Service’s analysis of Big Thorne’s cumulative impacts apparently assumes that all non-federal lands had a carrying capacity of zero in 1954 and currently.<sup>81</sup> This analysis presents an incorrect and inaccurate picture of the baseline condition in 1954 (e.g. only 6.6 deer/mi<sup>2</sup> for WAA 1318 in 1954).<sup>82</sup> And, for example, this can represent some WAAs that had capabilities of well over 18 deer/mi<sup>2</sup> in 1954 as having had much less than that. Certainly, in 1954, non-federal lands provided some winter habitat for deer – and likely substantial habitat – and some still do, so far.

We believe that the answer to this question – how the Forest Service interprets and applies the plain language of the Forest Plan – is critical to assessing whether the Tongass Land Management Plan as a whole insures the continued viability of wolves in Prince of Wales Island. As we discussed above and as the Forest Service readily admits, the system of old-growth reserves alone is not adequate to insure the continued viability of wolves. The entire Conservation Strategy, which is itself flawed in important ways, is premised upon substantive protections within the matrix to provide for the needs of deer and wolf outside of the reserve system.

If, however, the Forest Service now, through practice or otherwise, has determined that WILD XIV.A.2 is not a substantive, enforceable standard governing management of these areas of the matrix, then the entire foundation of the Conservation Strategy for deer and wolves must crumble. Here, the Forest Service is logging nearly all the last remaining deer winter habitat in some of these watersheds, knowing full well that these areas already fail to provide enough deer winter habitat to support the needs of wolves. If the Forest Plan allows for that to take place, then it simply cannot insure the continued viability of the wolf, because it would then, in effect, be relying on the reserve system alone and the few remaining WAAs on Prince of Wales Island that are currently above the 18 deer/mi<sup>2</sup> threshold (none of which are implicated by the Big Thorne project area).

For these reasons, we strongly encourage the Forest Service to consider and disclose to the public Dr. Person’s recommendations on the importance of the matrix in managing for large mammal predators.<sup>83</sup>

In the conservation strategy in TLMP, old-growth forest reserves comprise existing congressionally protected lands and a selection from some of the largest remaining roadless patched of unmanaged forest within the Tongass National Forest (U.S. Forest Service 1997).

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<sup>80</sup> ROD Table-8 and FEIS Table WLD-26.

<sup>81</sup> Compare 1954 values in Table ROD-7 with ROD-8, and it is obvious something is amiss.

<sup>82</sup> See the 1954 habitat capability for WAA 1318 in Tables ROD-8 and WLD-26.

<sup>83</sup> Exh-64 (submitted with this appeal) Person and Brinkman, 2013.

In extensively logged areas such as Prince of Wales Island, timber harvest targeted the most productive forested watersheds first; therefore, less productive forest often predominates in the unlogged and unroaded watersheds aggregated into forest reserves (Albert and Schoen 2007). Any strategy to conserve large mammal predator-prey communities must be able to accommodate their nonlinear dynamics; therefore, they should have large margins of error. In the case of Prince of Wales Island, that includes maintaining as much functionality within the matrix of managed lands as possible, while also maintaining current reserves and adding new high-quality landscapes within reserves.

Finally, we take issue with the Forest Service's apparent attempt to rely on mobility of wolves between WAAs, the "potential benefits of young-growth management," and the presence of OGRs that are adjacent to the project area.<sup>84</sup> The ROD does not explain why or how these considerations are relevant to the analysis required by the Forest Plan. If certain areas of the forest are population "sinks" – areas to which wolves will immigrate because the wolves that were there previously were unable to persist – then the overall viability of the population is further at risk. The agency must focus on "deer habitat capability."<sup>85</sup> The ROD fails to explain how any of these other factors relate to the relevant criteria in the Forest Plan. Nor does the ROD conclude that these other considerations will, in fact, insure sustainable populations of wolves or that they impact in any way an analysis of deer habitat.

***B. The Forest Service has failed to explain how the Record of Decision complies with the 1982 NFMA Planning Regulations on species viability, which are incorporated into the Tongass Land Management Plan.***

In addition to standard WILD X.IV.A.2, the Forest Service has also failed to explain how this project complies with the 1982 NFMA regulations regarding species viability. The 2008 TLMP includes "Forest Wide Standards and Guidelines," and clarifies that "[s]pecific activities and project will be planned and implemented to carry out the direction in this Forest Plan."<sup>86</sup>

Standard WILD1.II.B states as follows:

Provide the abundance and distribution of habitat necessary to maintain viable populations of existing native \* \* \* species well-distributed in the planning area (i.e., the Tongass National Forest). (Consult 36 C.F.R. 219.19 and 36 C.F.R. 219.27).

The 1982 NFMA planning regulations, in turn, require the Forest Service to:

Provide for adequate fish and wildlife habitat to maintain viable populations of existing native vertebrate species and provide that habitat for species chosen under Sec. 219.19 is maintained and improved to the degree consistent with multiple-use objectives established in the plan.<sup>87</sup>

As discussed above, all of the available information relating to this project demonstrates that all of the impacted land areas fail to provide enough deer winter habitat to support the needs of wolves. Both of these species have been designated as Management Indicator Species (MIS). The ROD documents that all of the WAAs and the Biogeographic Province already fail to meet the 18 deer/mi<sup>2</sup> habitat capability thresholds set forth in the Forest Plan,

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<sup>84</sup> ROD at 25.

<sup>85</sup> 2008 TLMP at 4-95.

<sup>86</sup> TLMP at 1-1.

<sup>87</sup> 36 C.F.R. § 219.27(a)(6).



and in all of these areas further logging of low-elevation deer winter habitat will result in further reduction in deer carrying capacity.<sup>88</sup>

Based on the existing degraded conditions and the additional losses of important deer winter habitat, the ROD concludes that the “project-related effects to deer habitat capability under the action alternatives, and reductions due to forest succession in previously harvested stands have the potential to reduce the prey base for wolves.”<sup>89</sup> The ROD concludes by stating that “there will be some reduction in the ability of the project area WAAs to maintain a sustainable wolf population, based on deer habitat capability alone.”<sup>90</sup>

The Forest Service has again failed to set forth a rational explanation for how this project complies with substantive protections in the TLMP that provide for the maintenance of viable populations of wolves. All of the project’s WAAs already fail to provide adequate habitat according to the habitat capability model. All of them will be further degraded. And the ROD concedes that the project will reduce the ability of all WAAs to maintain sustainable populations of wolves.

Although it is not at all clear how the Forest Service is assessing wolf viability, one possible explanation is that the Forest Service is “tiering” to or relying upon the analysis in the 2008 TLMP FEIS at 3-283 to 284.<sup>91</sup> There are many problems with this approach, but most importantly the Forest Service has failed to address more recent scientific information documenting a severe reduction in both wolf and deer populations. Dr. Dave Person has been raising these issues for several years, and in 2011 he provided an update report on his project “Estimating wolf populations in Southeast Alaska using noninvasive DNA sampling, for the September to November 2010 period.”<sup>92</sup> Dr. Person documented that despite extensive efforts, scat surveys found very little wolf activity in North-central Prince of Wales Island. From the time the project began in 2009 until then, his report notes that the scientists located “only 10 relatively fresh scats” and “[o]nly 2 of those scats were from outside of Honker Divide.”<sup>93</sup> Dr. Person concluded that this data “suggests low activity of wolves throughout most our study area in North-central Prince of Wales Island” and that “it is likely that the level of activity we observed is an indication of population decline \* \* \*.”<sup>94</sup> In a December 2010 e-mail to the Forest Service’s federal aid projects coordinator, Dr. Person reported:

“My impression is that wolf numbers within the central portion of Prince of Wales Island are at a low level. Not only can we not find many fresh scats, we have difficulty finding old scats deposited over months. The only exception has been Honker Divide, which shows indications that a healthy pack still inhabits the area. I cannot determine if individual packs are gone and evidence of wolves is distributed widely, but the density of sign is extremely low compared to previous years.”<sup>95</sup>

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<sup>88</sup> ROD at 27.

<sup>89</sup> *Id.* at 26.

<sup>90</sup> *Id.*

<sup>91</sup> See, e.g., ROD at 25 (stating that management prescriptions would retain deer habitat capability in WAAs above levels predicted in the TLMP FEIS).

<sup>92</sup> Exh. 68 (submitted with this appeal), Person 2011. A Federal Aid report dated Aug. 22, 2011 for the Sept.-Nov. 2010 period.

<sup>93</sup> *Id.*

<sup>94</sup> *Id.*

<sup>95</sup> Exh-69 (submitted with this appeal) Person e-mail of Dec. 7, 2010.

Based on his recent work and experiences, Dr. Person now estimates that there were only six to seven wolves left in the Big Thorne project area last fall.<sup>96</sup> Person and Larsen recently estimated that the entire population in the central WAAs of POW was only 24.<sup>97</sup>

In conjunction with proposals for amendments to bag limits, the Alaska Department of Fish and Game has also expressed growing concern about “numbers of wolves and the sustainability of wolf harvest in Unit 2.”<sup>98</sup> ADF&G noted that wolves were a distinct population segment on POW and that harvests have declined significantly, researchers have noted significant declines in signs of wolves, and local trappers have noted lower populations. ADF&G noted that “[l]ow population numbers could potentially trigger a listing under the Endangered Species Act.”<sup>99</sup>

Recent scientific information also documents growing concerns over deer populations in GMU 2.<sup>100</sup> Brinkman et al. estimated that deer densities on POW in managed land that was logged more than 30 years ago was as low as 7 deer/km<sup>2</sup> whereas deer densities in unlogged stands were substantially higher – 12 deer/km<sup>2</sup>. This data provides further evidence of the impacts of management on the predator-prey relationship and is relevant, in combination with a wide body of scientific information on declining wolf populations, to a determination of whether this Big Thorne project will insure the continued viability of the wolf.

Finally, all of this information needs to be assessed in the context of the best available science regarding wolf mortality and access for hunters and trappers. Road densities in the project area are already well above the level at which wolf mortality is likely to exceed rates of reproduction.<sup>101</sup> The impacts of the Big Thorne project need to be assessed and understood within the context of a heavily degraded landscape in which prior road construction has resulted in substantial declines in the populations of wolves and unsustainable levels of mortality from legal and illegal hunting and trapping. Further degradation of winter habitat for deer will place further stresses upon this system.

In sum, the Forest Service’s approval of the Big Thorne project is arbitrary because it has failed to explain how the project will insure the continued viability of the wolf as required by the TLMP. There is a well developed body of scientific evidence that deer and wolf populations in GMU 2 are unstable and declining, and much of this evidence has been developed since the most recent version of the TLMP was approved in 2008. The FEIS, the ROD and the remainder of the record do not reflect any reasoned analysis of this recent information on wolf and deer populations as well as the declines in habitat quality that explain these dynamics. The decision is therefore arbitrary and should be reconsidered by the agency.

***C. The Big Thorne project demonstrates why and how the 2008 TLMP is inadequate to maintain viable populations of wolves well distributed throughout the planning area.***

As many of our groups stated when we appealed the Forest Service’s decision to approve the 2008 TLMP, the plan is inadequate to insure the continued viability of the wolf

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<sup>96</sup> Exh-79 (submitted with this appeal) Person Dec’l. at ¶19.

<sup>97</sup> Exh-70 (submitted with this appeal) Person and Larsen 2013.

<sup>98</sup> Exh-71 (submitted with this appeal) ADF&G Comments on Proposal 18 for Nov. 2010 Board of Game Meeting

<sup>99</sup> *Id.*

<sup>100</sup> Exh-67 (submitted with this appeal) Brinkman et al. 2011.

<sup>101</sup> Person and Russell 2008 (in folder 736\_2241a).

as required by the 1982 NFMA planning rules. We adopt by reference the comments submitted by Greenpeace on the Draft EIS for the 2008 Tongass LRMP as well as our appeal of the FEIS and Record of Decision.

As discussed above, recent information on declines in the populations of wolves and deer are consistent with the concerns that we expressed when the Forest Plan was adopted. We have been raising these issues for years – that the loss of deer habitat will have a negative effect on deer populations that is disproportionately greater than the reduction in habitat capability and that the Forest Service failed to account fully for the cumulative effects of logging on populations of deer and wolves. In 2008, the Forest Service concluded that wolf populations in GMU 2 “are thought to be stable” even though the agency acknowledged that “past timber harvest has reduced deer habitat capability and increased road density.”<sup>102</sup> Now, however, the concerns we voiced about the 2008 TLMP are playing out on the ground as past management activities have resulted in a decline and instability in the wolf population on Prince of Wales Island.

As this scientific information and this particular timber sales demonstrate, the standards and guidelines for road density and deer habitat capability are too weak and fail to provide adequate protections for the matrix. Furthermore, the assessment of the Conservation Strategy was based on relative values<sup>103</sup> and fails to provide any objective analysis of whether the plan will insure viable, well-distributed populations of wolves. All of these issues, which we raised at the time of the 2008 TLMP, have manifested themselves in this project-specific proposal to log more than 6,000 acres of old-growth forest and some of the best remaining deer winter habitat on Prince of Wales Island.

Wolf populations on Prince of Wales Island are being pushed to the brink, and there can be no question at this point that the viability of the wolf has been threatened by management activities associated with the 2008 TLMP. Continued road building and logging of low elevation, old-growth forest that provides deer winter habitat will exacerbate a situation that has already destabilized the now delicate predator-prey relationship on Prince of Wales Island. If these activities are authorized by the 2008 TLMP, then its clear that the TLMP itself is inadequate to insure the continued viability of the wolf.

***D. The Forest Service failed to disclose to the public and the decision maker the substantial controversy and dissenting scientific opinions as to whether the Big Thorne Project and the 2008 TLMP insure the continued viability of the wolf.***

The significant concerns we have with respect to the viability of the wolf are compounded by very serious procedural errors under NEPA in which the Forest Service failed to close dissenting scientific opinions and controversy regarding the continued viability of the wolf. These errors are fatal to the decision here and require that the Forest Service prepare a supplemental EIS to disclose these issues to the public before a final decision is made to log more than 6,000 acres of old-growth in the Tongass National Forest.

The Forest Service is required to discuss in the Final EIS “any responsible opposing view which was not adequately discussed in the draft statement and shall indicate the agency’s

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<sup>102</sup> 2008 TLMP EIS at 3-237-38.

<sup>103</sup> See, e.g., 2008 TLMP FEIS at D-64, Table D-1. The scores are a measure of “relative likelihood” and do not provide any objective assessment of habitat necessary to insure the continued viability of the wolf.



response to the issues raised.”<sup>104</sup> These requirements ensure that the agency makes “available to the public high quality information, including accurate scientific analysis, expert agency comments and public scrutiny, before decisions are made and actions are taken.”<sup>105</sup>

In this case, along with our comments on the Draft EIS for the Big Thorne project we provided the Forest Service with information that Dr. Dave Person had circulated with ADF&G regarding the potential impacts associated with the project. While ADF&G appears to have suppressed that information, the Forest Service, once it was provided with those responsible scientific opinions, was under an obligation to disclose that information to the public prior to making a decision on the project.

In particular, Dr. Person noted that the Big Thorne project will “remove the most important winter habitat for migratory deer in the watershed” and that the project will “likely have consequences for the future viability of the watersheds involved to sustain wolves and deer.”<sup>106</sup> Dr. Person also provided maps demonstrating how the Big Thorne project would log much of the remaining high quality deer winter habitat left in these watersheds.<sup>107</sup> He concludes that “I doubt that a resilient and persistent wolf-bear-deer-human predator-prey system will be possible within the watersheds affected after the project is completed.”<sup>108</sup> We discussed his concerns in much more detail in our comments on the DEIS, which we incorporate by reference here.

Despite our best efforts at alerting the Forest Service to the systematic suppression of Dr. Person’s opinions by the ADF&G, the federal agency made no effort here to disclose this critical information to the public as required by federal law. The FEIS is devoid of any discussion of the substantial concerns raised by Dr. Person, which are corroborated by the scientific information and opinions discussed above concerning dwindling populations of wolves and the failures of the TLMP and the associated standards and guidelines. This procedural failure – the refusal to even acknowledge the well-founded opinion of the foremost expert on wolves in the Tongass, a person who has studied wolves in GMU 2 for over 20 years – renders the public disclosure under NEPA fatally flawed and invalid. While the Forest Service has some discretion in making difficult choices when presented with conflicting science, the agency has an obligation under federal law to disclose to the public the full range of scientific views and to fully and fairly discuss them before taking an action. Here, the Forest Service compounded the ethical violations that took place within ADF&G, violating NEPA’s disclosure requirements in the process.

Because the Forest Service failed to comply voluntarily with federal law and disclose to the public these serious concerns regarding wolves and deer in the Tongass, we have submitted to the agency along with our appeal a statement from Dr. Person that sets forth his concerns in more detail.<sup>109</sup> We reiterate that we alerted the agency to these issues in our

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<sup>104</sup> 40 C.F.R. § 1502.9(b); *see also Western Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 492 (9th Cir. 2011).

<sup>105</sup> *Id.* (citing *Ctr. for Biological Diversity v. U.S. Forest Serv.*, 349 F.3d 1157, 1167 (9th Cir. 2003)); *see also* 40 C.F.R. 1500.1(b)).

<sup>106</sup> *See* “Exh-12.55 (revised 8-15-13),” submitted with our appeal. Note that this revises an exhibit submitted with our DEIS comments that is in zip archive Exh-12 by adding three maps we received later (by public records request) which go with one of the messages in 12.55. The other newer copy of that message, which included the maps, is also included.

<sup>107</sup> *Id.*

<sup>108</sup> *Id.*

<sup>109</sup> Exh-79 Declaration of Dr. David Person, August 15, 2013.

comments on the DEIS and specifically asked that the Forest Service make this information available to the public.

In particular, Dr. Person provides further information that is critical to the Forest Service's analysis of the potential impacts of the Big Thorne project and the 2008 TLMP on wolves and deer. His concerns and statements include the following:

1. The system of old-growth reserves in the TLMP is inadequate, because they are smaller than the size of a wolf pack home range and therefore the viability of the wolf in Price of Wales island may be in doubt<sup>110</sup>;
2. He participated in an April 9, 2013 meeting with the Forest Service to discuss his concerns about the Big Thorne project and the need to focus on preserving deer habitat because of the existing elevated road densities<sup>111</sup>;
3. He further communicated with Forest Service Biologist Brian Logan to communicate his concern that the Big Thorne project threatens wolf viability<sup>112</sup>;
4. Wolf populations in the Big Thorne project area have declined markedly since 2008 as a result of the effects of old-growth logging and road building<sup>113</sup>;
5. Further logging in areas that already fall below the TLMP standard and guideline of 18 deer/mi<sup>2</sup> creates the risk of a much larger drop in deer populations figures and greater instability in the predator-prey relationship on Prince of Wales Island.<sup>114</sup>

To be clear, Dr. Person has been communicating all of these concerns to the Forest Service over the years in numerous ways. We provided you with evidence of his concerns in the form of his communications within ADF&G. As clarified in his statement, he also met directly with Forest Service personnel including Supervisor Cole,<sup>115</sup> and he spoke directly with a Forest Service biologist.<sup>116</sup> His opinions are backed up by decades of published, peer-reviewed research, much of which he cites in his statement and is attached to our administrative appeal for the record. The FEIS fails to reflect in any substantial way his concern about the project's impact on wolf viability, which our organizations share and which we have been trying for many years to have included in the Forest Service's environmental analyses.

Because the FEIS does not reflect a balanced and reasoned analysis of the significant scientific concerns regarding the viability of the wolf and the impacts of this project as well as the shortcomings of the 2008 TLPM, we strongly request that the Forest Service withdraw the ROD and publish a supplemental EIS that discusses in full all relevant information and scientific views – even those that contradict the agency's view - on the potential impacts of Big Thorne on deer habitat and wolf viability.

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<sup>110</sup> *Id.* at ¶ 8.

<sup>111</sup> *Id.* at ¶ 9.

<sup>112</sup> *Id.* at ¶ 10.

<sup>113</sup> *Id.* at ¶ 13(a).

<sup>114</sup> *Id.* at ¶ 34(o).

<sup>115</sup> Exh-79 (submitted with this appeal) Person Dec'l. at ¶ 9.

<sup>116</sup> Exh-79 (submitted with this appeal) Person Dec'l. at ¶ 10.

***E. The FEIS fails to disclose the site-specific impacts to deer and wolves resulting from authorizing additional logging in areas that already suffer from deer winter habitat carrying capacities below 18 deer/mi<sup>2</sup>***

The FEIS in this case fails to disclose the site-specific impacts to deer populations, wolf populations and subsistence activities that may result from the logging of more than 6,000 acres of old-growth. As discussed above, we have grave concerns that the Forest Service is authorizing logging in WAAs that already fall well below the 18 deer/mi<sup>2</sup> figure that is presumed to be the absolute minimum necessary<sup>117</sup> to sustain a balanced predator-prey relationship.

We again reiterate our concerns that the Forest Service cannot rely on deer model outputs alone to analyze and disclose the environmental impacts of these proposed activities. Our DEIS comments set forth the many shortcomings in the deer model, including the failure to consider stochastic events, the failure to consider the increased likelihood of heavy snowfall years associated with climate change, the nonlinear relationship between habitat carrying capacity and actual deer numbers and the impacts of fragmentation. The FEIS relies almost exclusively on deer model outputs, but the agency never discusses the potential on-the-ground impacts given these shortcomings in the deer model and the substantial degradation of habitat that would result from this project.<sup>118</sup>

Similarly, the FEIS admits that declines in deer density caused by the project may “reduce the availability of deer to subsistence hunters,” but the FEIS fails to offer any additional information as to the level of impact to subsistence uses. This is nothing more than a generalized discussion that fails to present any quantified information on – to take the required “hard look” at – the extent of impacts to local subsistence communities.

***VI. The Forest Service, in approving the Big Thorne Record of Decision, has failed to meet the requirements of the Alaska National Interest Lands Conservation Act.***

The Sitka black-tailed deer is a primary subsistence use species for residents living in rural communities in southeast Alaska. Native and non-native residents living in rural communities depend on these deer as a significant food source. For native residents, this subsistence is cultural as well as economic; not only do those who hunt enough deer not need to buy as much food for cash, but by living on deer meat that they hunt, they provide for their subsistence as their ancestors did.<sup>119</sup> The Big Thorne project in the Tongass National Forest will have a significant impact on the subsistence use of these deer. The Forest Service has concluded that logging and road construction associated with the project “may result in a significant restriction of subsistence uses of deer, due to potential effects on abundance, distribution, and competition.”<sup>120</sup>

Congress has addressed the impacts to subsistence uses on public lands such as this through section 810 of the Alaska National Interest Lands Conservation Act (“ANILCA”).<sup>121</sup> ANILCA places an emphasis on subsistence resources and lifestyles, prohibiting land use

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<sup>117</sup> Exh-79 (submitted with this appeal) Person Dec'l. at ¶ 34(o).

<sup>118</sup> See, e.g., FEIS at 3-165 (relying on reduced deer carrying capacity outputs from the deer model).

<sup>119</sup> See *Hoonah Indian Ass'n v. Morrison*, 170 F.3d 1223, 1225 (9th Cir. 1999).

<sup>120</sup> Big Thorne Project Record of Decision (ROD) at 42.

<sup>121</sup> 16 U.S.C. § 1320.

actions that unnecessarily restrict subsistence uses of land.<sup>122</sup> Under section 810, once an agency finds that land use actions will significantly restrict subsistence uses, the actions cannot be undertaken unless the head of the federal agency, *inter alia*, “determines that...such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands.”<sup>123</sup>

The Ninth Circuit has said that ANILCA does not act to put subsistence uses ahead of all other uses.<sup>124</sup> In *Hoonah*, which like this case involved the subsistence use of deer in the Tongass National Forest, the court declined to accept the tribes’ argument that, because the Tongass Timber Reform Act (TTRA)<sup>125</sup> does not require a set amount of timber production, no restriction on subsistence uses is “necessary,” and thus any use significantly restricting subsistence uses would be prohibited.<sup>126</sup> The court found that the term “necessary” is modified by its context, which in this section refers to the statutory language “consistent with sound management principles for the utilization of public lands.”<sup>127</sup> In this sense, the court found that, although “a significant restriction of subsistence uses might not be necessary to achieve compliance with law,” it might yet be necessary to conform to sound management principles for such “utilization,” which includes timber sales and other uses.<sup>128</sup> Therefore, the Forest Service’s claim that the sale was needed to supply timber to the southeast Alaska timber industry made such subsistence impacts necessary.<sup>129</sup>

Here, in violation of the requirements of ANILCA, the Forest Service has not shown that the timber production proscribed in the Record of Decision (ROD) necessitates significant impacts to the subsistence use of deer. The Forest Service has impermissibly elevated timber uses of the land over subsistence uses, relegating subsistence uses to a secondary role in the utilization of the Big Thorne area. In addition, the Forest Service has consistently overstated the market demand for timber from the Tongass National Forest, which has improperly weighed against subsistence uses and is at odds with ANILCA. Finally, because Big Thorne is distinct from *Hoonah* since TLMP standard and guideline WILD XIV.A.2 had not yet been adopted when the two timber projects involved in *Hoonah* were planned and decided, the Forest Service here has failed to accord adequate weight to these impacts on the subsistence use of the deer. For these reasons, the Forest Service is in violation of ANILCA’s prohibition on restricting impacts to subsistence uses except where necessary.

**A. The Forest Service has impermissibly elevated timber uses over subsistence uses, relegating subsistence uses to a secondary role in the utilization of the Big Thorne project area.**

In contrast to the requirements of ANILCA, the Forest Service has made a conscious decision to elevate timber production over other uses, relegating subsistence uses to a secondary role in the utilization of the forest. The ROD says that “the Forest Plan has determined that the Big Thorne project area should be managed mostly for varying levels of

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<sup>122</sup> *Id.*

<sup>123</sup> 16 U.S.C. § 3120(a)(3).

<sup>124</sup> *Hoonah Indian Ass’n v. Morrison*, 170 F.3d at 1227.

<sup>125</sup> 16 U.S.C. § 539d.

<sup>126</sup> *Hoonah*, 170 F.3d at 1227.

<sup>127</sup> *Id.*

<sup>128</sup> *Id.*

<sup>129</sup> *Id.*

timber production...but with recognition of the other resource uses.”<sup>130</sup> By using this language, the Forest Service elevates timber production above subsistence and other uses instead of balancing multiple equally valid public interests. The court in *Hoonah* recognized that, in enacting section 810 of ANILCA, Congress did not place subsistence uses above other uses of federal lands<sup>131</sup>; however, Congress clearly also did not intend for subsistence uses to take a subordinate role to other public interests. The Supreme Court has stated that, in enacting ANILCA, Congress “declared that preservation of subsistence resources is a public interest and established a framework for reconciliation, where possible, of competing public interests.”<sup>132</sup>

The plain language of ANILCA and the subsequent case law demand more than a mere “recognition” of the subsistence uses of national forest lands. As the court noted in *Hoonah*, “subsistence uses by rural Alaskans are an important public interest to which the Forest Supervisor [must] give careful attention.”<sup>133</sup> This certainly requires more than simple “recognition” of such interests.

***B. The market demand for timber has been consistently overstated by the Forest Service, which has improperly weighed against the impacts on subsistence uses.***

The TTRA requires the Forest Service to “seek to provide a supply of timber from the Tongass National Forest which (1) meets the annual market demand for timber from such forest and (2) meets the market demand from such forest for each planning cycle.”<sup>134</sup> The Big Thorne project falls under this mandate. Here, however, the Forest Service’s projections for current and future market demand for Tongass timber are not based on a realistic assessment of timber markets and demand. Instead, the methodologies used to predict market demand are an artificial demand rationalization toward achieving a hoped for result rather than a methodology designed to yield accurate results. This has the effect of unduly inflating the economic benefit of such timber production while relegating subsistence uses to a lesser role.

The Selected Alternative calls for logging 148.9 million board feet (MMBF) of timber, which according to the ROD “strikes a balance between meeting the resource needs of the public and protecting the forest resources.”<sup>135</sup> However, the history of the Tongass National Forest shows that the Forest Service has consistently overstated the market demand for Tongass timber. Forest-wide, over 44% of the offerings from 1998-2007 failed to attract bidders, and 46% of actual sales ended up in default or were mutually cancelled.<sup>136</sup> The methodologies relied on by the Forest Service since 1980 have never come close to predicting actual timber volume purchases and have overestimated real demand by 60% for over a decade.<sup>137</sup>

Moreover, there is nothing to indicate that the timber markets will recover during the life of this project. The facts show that the only realistic scenario for Tongass timber has been and continues to be declining demand. In 2009, in regards to the Logjam Timber Sale,

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<sup>130</sup> ROD at 43.

<sup>131</sup> 170 F.3d at 1227.

<sup>132</sup> *Amoco Production Co. v. Village of Gambell*, 480 U.S. 531, 545-46 (1987) (emphasis in original).

<sup>133</sup> 170 F.3d at 1230.

<sup>134</sup> 16 U.S.C. § 539(d).

<sup>135</sup> ROD at 43.

<sup>136</sup> Joseph R. Mehrkens, *Tongass Timber Economics 101*, p.10 in 736\_2241a:Exh-2.

<sup>137</sup> *Id.*



Forest Supervisor Cole acknowledged that “there continues to be a downward trend in the timber markets” and that “the financial efficiency of the Selected Alternative has decreased” during the short time in between the development of the Logjam Timber Sale DEIS and the ROD.<sup>138</sup>

In addition, the projections for future market demand growth rely substantially on the continued export of timber, including the export of raw logs to overseas markets such as China.<sup>139</sup> Raw logs exports provide little in economic value to local communities in southeast Alaska, as this means of selling timber eliminates the need for southeast Alaska mills. The raw log export policy used by the Forest Service, which allows for 50% of the spruce and hemlock processed in southeast Alaska to be exported as round log, is in place because it “enhances opportunities for local supply to manufacturers who depend on Tongass timber by increasing the probability that sales will appraise positive as required by [Congress].”<sup>140</sup> In other words, it is the only way to ensure that timber sales will be profitable. Moreover, the need to export timber to make a profit does not appear to be going away soon. The Regional Forester noted this year that “challenges continue for purchasers seeking domestic markets for Alaska timber.”<sup>141</sup>

The practical outcome of this flawed timber demand analysis is that it deflated the reported economic impacts of the Big Thorne Project to far below the actual impacts, which in the FEIS analysis unduly weighs against the project’s substantial impact on subsistence uses of the forest. By claiming that the market demand requires such large harvests under the TTRA, the Forest Service enabled itself to assert that such harvests are needed to promote the southeast Alaska timber industry, and thus that such substantial impact to subsistence uses is “necessary.” This is simply not the case. The market demand for Tongass timber is far lower than projected, meaning that the economic benefit to southeast Alaska communities will be far lower than projected.<sup>142</sup>

The Ninth Circuit has stated that “if the demand for timber was mistakenly exaggerated, it follows that the timber harvest goals may [be] given precedence over the competing environmental and recreational goals without justification sufficient to support the agency’s balancing of these goals.”<sup>143</sup> This is precisely what has happened here. Exaggerated demand numbers have been used to so that the value of timber production outweighs the finding that there will be a significant impact on the subsistence use of Sitka black-tailed deer. Using realistic demand numbers would show that in the southeast Alaska economy timber production has a lower value than claimed. The result would be that such a significant restriction of subsistence uses is not “necessary” under ANILCA.

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<sup>138</sup> Logjam Record of Decision at R-5.

<sup>139</sup> See Brackley, et al., *Timber Products Output and Timber Harvest Projects in Alaska: 2005-25* (Dept. of Agriculture, Pacific Northwest Research Station 2006). In folder 736\_2241a.

<sup>140</sup> Big Thorne FEIS at 3-32.

<sup>141</sup> *Id.*

<sup>142</sup> In addition, the perceived need for a healthy timber industry in southeast Alaska as a means to protect the local economy and provide jobs ignores the fact that the southeast Alaska economy has largely moved on from its timber dependent past. Tongass dependent timber employment is now less than 1% of the total private sector employment in the region. Mehrkens at 8.

<sup>143</sup> *Natural Res. Defense Council v. U.S. Forest Service*, 421 F.3d 797, 808 (9th Cir. 2005).

**C. The Forest Service has failed to accord adequate weight to the subsistence impacts of the project, which are much greater than those at issue in Hoonah.**

Deer habitat is greatly affected by the Big Thorne project. The alternative selected by the Forest Service will have the greatest impact on deer out of all the action alternatives noted in the Final Environmental Impact Statement (FEIS).<sup>144</sup> It will result in the immediate reduction of habitat by up to 9%, and it will have the greatest cumulative effects on the deer out of any of the other alternatives.<sup>145</sup> In combination with past, contemporaneous, and reasonably foreseeable future projects, the cumulative reduction in deep snow winter habitat for deer could be up to 60% of original amounts, average snow winter habitat reductions of up to 70%, and non-winter habitat of up to 83%.<sup>146</sup> As we discuss elsewhere in this appeal, the outcome of the project at the stem exclusion stage would be a lessening of deer habitat capability when analyzed at all of the geographic scales the ROD considered. The resulting cumulative shortfall below the standard and guideline of providing a habitat capability of 18 deer/mi<sup>2</sup> would be 21% to 64% of that value, for the project's four WAAs. At the province scale the shortfall would be 33%.<sup>147</sup> Compared to Alternative 1, at stem exclusion the ROD would result in further reductions in habitat capability of 3.4% to 6.6%, at the WAA scale.<sup>148</sup>

That presses the habitat capabilities of those areas far below the minimum requirement of WILD XIV.A.2, worsening an already bad situation in doing so. In *Hoonah*, however, this standard did not exist. Moreover, the major islands (Chichagof and Baranof Islands) where the two timber projects in *Hoonah* were located have never harbored wolf populations because they are isolated by broad tidal straits that wolves cannot cross. The Big Thorne project is distinctly different, and would log more than 6,000 acres of old-growth and thousands of acres of low- and mid-elevation deer winter habitat, as discussed in other places in this appeal. This project would contribute to declines in deer habitat carrying capacity across an entire biogeographic region which is below the standard and guideline in the Forest Plan of 18 deer/mi<sup>2</sup>, and the picture is even worse when considering individual WAAs. Thus, in determining that local economic needs outweighed the needs of subsistence uses, the court was dealing with a much different circumstance with respect to deer habitat and the ecological community (including humans) in which deer play a major role. Moreover, the court in *Hoonah* focused its attention on the issue of whether ANILCA contemplated balancing of interests at all, and as a result spent much less time discussing the more nuanced question of the point at which balancing of interests still results in subsistence impacts being unnecessary. Thus, the court's decision in *Hoonah* gives little guidance as to whether the impacts here, where the subsistence impacts are so much greater, are necessary.

The Forest Service has admitted that the impacts to deer habitat and subsistence uses are significant.<sup>149</sup> However, in its ANILCA analysis, it makes the blanket statement that the ROD "strikes a balance" between resource needs and the protection of forest resources

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<sup>144</sup> Big Thorne FEIS at 3-173.

<sup>145</sup> *Id.*

<sup>146</sup> *Id.* at 3-250.

<sup>147</sup> Calculated from ROD Table 8 data. For the four affected WAAs the habitat capabilities would be 5.5, 8.3, 8.6 and 14.3 deer/mi<sup>2</sup>. For the biogeographic province it would be 14.0 deer/mi<sup>2</sup>.

<sup>148</sup> Performing such a calculation of percentage reduction at the biogeographic scale would be of no analytic value because of the large land area involved, which washes-out the impact. However, at that large scale the percentage of shortfall below 18 deer/mi<sup>2</sup> is a useful statistic.

<sup>149</sup> ROD at 42.

without explaining why such a large impact to deer habitat is still considered necessary in light of the impact it will have on subsistence deer uses.<sup>150</sup> Without this explanation, it is difficult to tell whether the Forest Service has properly weighed the actual impacts to deer habitat and subsistence uses, or whether it simply found timber production to be the most attractive use of the forest. For these reasons, it is impossible to say that the requirements placed on the Forest Service by ANILCA have been met.

## **VII. Wildlife Other than Deer and Wolves: MIS and Sensitive Species**

As explained in previous sections, the flaws with the TLMP conservation strategy as applied to the BTP project area, as well as the ROD OGR modifications, pose unjustifiable risks to numerous wildlife species.<sup>151</sup> The most significant problems that were ignored throughout the analyses of individual wildlife species related to the past, present and future concentration of timber extraction on POW, which triggered higher viability risks associated with exceeding habitat loss thresholds in the northern portion of the island – the BTP project area. See e.g. Smith, W. 2012. Big Thorne Project Comments.

The FEIS compounded these risks by failing to analyze species-specific risks and failing to implement species-specific habitat protections, in violation of NEPA's hard look requirement. For marten and black bear, for example, the FEIS entirely dodges the issue of critical foraging habitat. For rarer species such as flying squirrels and goshawks, the FEIS relies arbitrarily on total POG levels and recently weakened TLMP Standards that were widely opposed by the scientific community and expert agencies, and grossly misrepresents the habitat needs and ranges of these species as it strains to characterize the significant negative effects of the selected alternative as "moderate" or likely to cause "localized declines." See, e.g. FEIS at 3-197; Appx. B at B-152 ("goshawks are highly mobile" when in fact long distance trips are not normal but rather a response to habitat loss on POW and populations are already low so effects will only be "moderate"); B-164 ("interspersed low productive habitats clearly can support flying squirrels for a short time and [can] facilitate dispersal"). These statements directly conflict with the opinions of scientists with considerably more expertise in southeast Alaska wildlife populations than the TNF's NEPA contractor, yet the FEIS failed to "candidly disclose ... the risks ... and respond to adverse opinions" at an appropriate point – in the substantive section of the FEIS. *Seattle Audubon Society v. Moseley*, 798 F.Supp. 1472, 1482 (W.D. Wash. 1982). As noted in the prior discussion on deer and wolves, the BTP fails to provide the "abundance and distribution of habitat necessary to maintain viable populations of existing ... native species well-distributed in the planning area." TLMP Std. WILD1.II.B; 36 C.F.R. § 219.19.

### **A. Species on the Brink of Extinction: Queen Charlotte Goshawk and Endemic Mammal Species Such as the Flying Squirrel**

#### **1. Queen Charlotte Goshawk**

The goshawk is a sensitive species, meaning that population viability is a concern on the Tongass. TLMP goals for sensitive species are to ensure adequate numbers and distribution of species and avoid extirpation and/or federal listing. [2008 TLMP FEIS at 3-226]. The TLMP

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<sup>150</sup> *Id.* at 43.

<sup>151</sup> We also incorporate by reference our DEIS comments on other wildlife species, such as cavity nesters and marbled murrelets. The FEIS failed to correct the analytical deficiencies that were present in the DEIS.



mandates that “[s]pecial consideration should be given to the possible adverse impacts on habitat of sensitive, threatened and endangered species.” [2008 TLMP at 4-89]. The FEIS should have given special consideration to goshawk habitat and population viability on POW. 16 U.S.C. § 1604(g)(3)(B). Instead, it relied on broad measurements of POG reductions and ignored expert scientist comments which stated explicitly that this project implicates extinction risks, and thus runs afoul of the TLMP requirement to ensure adequate numbers to avoid extirpation and/or federal listing.<sup>152</sup>

The FEIS should have also included analysis of habitat quality and taken into account all available information on differential utilization of various forest types and structures, and cumulative effects of past and foreseeable activities affecting habitat. The FEIS lumps goshawks in with other wildlife and concludes that POG reductions would reduce habitat, and that population reductions may occur, but habitat and viability are maintained by TLMP standards and guidelines, riparian and beach buffers, old growth reserves, etc. The FEIS relies on disclosure of POG acres harvested to express impacts to QC goshawk. It fails to take to the next step and consider what these reductions mean for goshawk viability. Even the poor quality analysis in the FEIS shows that the selected alternative “will result in a local reduction [sic] goshawk nesting and foraging habitat and in the goshawk prey base” resulting in a reduction in goshawk density. FEIS at 3-237.

The FEIS acknowledges that “there is a low abundance of goshawks on POW due to the lack of prey.” However, it fails to specifically consider impacts of the approved logging to prey availability, or indirect effects to goshawk productivity, rendering the conclusion that the project is not likely to contribute to a need for federal listing arbitrary and capricious. As indicated in expert scientist comments on the project, goshawk habitat needs are composed of multiple biological components, and the FEIS and ROD address but one of those components – the nest area (and inadequately). Smith, W. 2013. Prior habitat loss has created abnormally large foraging areas for goshawks on POW and further loss of goshawk habitat in the project area could lead to local extirpations or even more likely, risks of extinction as the TNF’s modification of the north central POW landscape increasingly mirrors the landscape inhabited by British Columbia populations. But the TNF did not specifically consider this matter with analysis requested in comments of prey availability in the project area.

In fact, expert scientist comments on the DEIS identified precisely this result – in direct opposition to the conclusions drawn in the FEIS:

... maintaining sufficient habitat to support a [Queen Charlotte Goshawk (QCG)] breeding population on POW is fundamental to maintaining the viability of the QCG. The proposed actions under the Big Thorne Project will further reduce essential habitat available to breeding QCG on POW beyond [TLMP thresholds] and, more importantly, beyond levels that are recommended to sustain viable and well-distributed populations across managed watersheds of the island, thus increasing the risk of extinction of the QCG subspecies. Smith, W. 2012. Big Thorne Comments.

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<sup>152</sup> Specifically, Dr. Smith reviews his own research, done through the TNF, and states that his findings “increase uncertainty about conservation measures contributing sufficient habitat to sustain well-distributed, viable populations of northern goshawks throughout southeast Alaska. [F]urther logging of north POW will reduce essential habitat for breeding QCG and increase the risk of extirpation of the POW subpopulation of QCG, which ultimately increases the risk of extinction of the already threatened DPS.”

The TNF placed a single 100 acre buffer around the one nest it did find without conducting any evaluation of whether that buffer provided habitat features necessary to ensure species viability. FEIS, Appx. B at B-52. Instead, the BTP FEIS assumed TLMP provisions “across the Tongass” would provide foraging and nesting habitat. *Id.* This approach clearly violates TLMP standards, which require that the TNF “[c]onsider surrounding landscapes when managing for goshawk nest sites” and provide alternative management upon documentation of the rationale. 2008 TLMP at 4-99. The Fish and Wildlife Service’s comments on the DEIS explicitly recommended increasing the nest buffers to provide for alternate nests, to provide fledgling habitat and adequate foraging habitat. PR 2241. Similarly, Dr. Smith’s comments indicated that few goshawk nest areas provide adequate habitat features and that TLMP mandated 100 acre buffers were unlikely to meet scientifically established habitat objectives. But the TNF refused to consider expanding the nest buffer despite expert comments documenting the rationale.

Further, materials in the planning record indicate that the TNF ran out of money to survey for goshawks, and the biological assessment indicated that only limited surveys were planned in the future. The Forest Service’s own science review team noted the difficulty of locating active nests, meaning the BTP could easily proceed to disturb or eliminate one of the few remaining nest sites on the island. TLMP Planning Record, Document #970. The Fish and Wildlife Service’s comments indicated that there was likely another probable nest, as well as other sightings, yet the FEIS provides no assurances that further and scientifically defensible surveys will occur.

Finally, the Forest Service fails to ensure viability of QC goshawk, in violation of NFMA, by also failing to meet TLMP requirements for modification of small old growth reserves. Alternative 3 changes several small OGRs, including in VCU 5800, 5810 and 5850, where evidence in the record demonstrates that the change will fail to obtain “comparable achievement” of landscape connectivity objectives, a point with which USDOJ noted in its DEIS comment but was ignored by the decision-maker, in violation of NEPA.

Thus, the analysis in the FEIS, and the ROD’s reliance on that analysis, violated NEPA and NFMA in numerous ways. First, the BTP relies on an invalid nest buffer standard and guideline. When a viability standard is invalid and inadequately implemented, the Forest Service fails to meet its obligation to manage wildlife habitat “to maintain existing native and non-native species in the planning area.” 36 C.F.R. § 219.19; *Idaho Sporting Congress v. Rittenhouse*, 305 F.3d 957, 970 (9<sup>th</sup> Cir. 2002). Second, the FEIS failed to take a hard look at project impacts at the site-specific level given the concerns raised in response to the DEIS and the body of science establishing that goshawk populations on POW are particularly at risk. NEPA requires that a federal agency preparing an EIS “has made an adequate compilation of relevant information, has analyzed it reasonably, has not ignored pertinent data, and has made disclosures to the public.” *Sierra Club v. U.S. Army Corps of Engineers*, 701 F.2d 1011 (2<sup>nd</sup> Cir. 1983). The FEIS and its supporting documentation did not meet that standard – the record does provide some of the relevant information, but the analysis was wholly unreasonable, and pertinent data was ignored or not disclosed.

Finally, the FEIS arbitrarily relied on TLMP Standards and Guidelines and the TLMP Conservation Strategy to ensure consistency with the viability regulation and sensitive species guidelines. As discussed the Greenpeace et al TLMP appeal and in the expert agency comments on the 2008 TLMP Amendment, the TNF considerably weakened protections for the goshawk by failing to include all known nests in OGRs, eliminating nest buffers after a short period of non-use (as if anyone would know without a good survey) and failing to direct the implementation of adequate nest buffers or ensure adequate foraging habitat. The project could have implemented larger buffers and heeded the expert comments

recommending more forest retention across the forest landscape. Instead, it fails to ensure sufficient habitat to support the minimal number of individuals in the project area and exacerbates an island-wide problem. These failures violated NFMA.

## **2. Endemic Species and the Flying Squirrel: Globally Significant Biodiversity Impacts**

The TLMP recognizes that loss of unique species on the Tongass is an issue of concern. In order to ensure viable populations of endemic mammals, it is important to consider the evolutionary history, ecology, and the current status of landscape connectivity for these species.<sup>153</sup> Endemic mammal experts have stated that POW requires additional management considerations because the highest intensity of logging has occurred in endemic habitat.<sup>154</sup>

Our comments requested that you carefully evaluate project impacts on endemic populations. NFMA regulations require and the TLMP provides specific prescriptions for endemic mammals that include directives to consider unique populations and their habitat relationships and maintain habitat for those populations. [36 C.F.R. § 219.27(g); 2008 TLMP at 4-87]. We requested that you review the relevant scientific material such as the studies of Joseph Cook et al. included in the TLMP planning record and discuss the cumulative impacts of logging on dispersal and isolation of endemic mammal populations. We also requested that you contact Dr. Cook and seek out and review and discuss any studies done after the completion of the 2008 TLMP amendment. We have also included as an exhibit to our DEIS comments a letter from Dr. Natalie Dawson, who is one of the foremost experts on Tongass endemic and small mammals. Dr. Dawson has previously expressed concern with intensive logging on POW and reiterates that concern in her letter.

As an initial matter, the NEPA analysis failed to provide a more thorough assessment of project level effects on small and endemic mammals. Adequate surveys have not been conducted on many portions of larger islands. [Haufler et al. 2005]. When, as here, there is not sufficient information regarding a number of endemic species, the Forest Service must perform surveys as part of that assessment. 2008 TLMP at 4-87. Scientists at the 2006 Conservation Strategy Workshop explicitly referred to the absence of baseline data on POW endemics. The FEIS did not demonstrate that the TNF did the required surveys using a scientifically defensible methodology. It was also imperative to conduct “additional viability assessments for the various identified endemism zones ... to check that conservation strategy will maintain viable populations of these species within these zones.” *Id.* Reviewers of the conservation strategy have questioned whether the strategy is sufficient to adequately maintain endemic habitat on Prince of Wales Island:

... the Prince of Wales Island complex appears to be an area that is isolated from other parts of the Tongass for a number of species. This new information raised the question of the validity of viability assessments that were conducted for the entire forest. These analyses did not find viability concerns for the species at the Forest level, but some questions about the “well distributed status were raised, although this criterion was determined to be adequately addressed in these analyses. While questions of what subpopulations might need to be maintained remain uncertain at this time, it would appear that population

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<sup>153</sup> See, e.g. Suring et al. 1992; Cook and Macdonald 2001.

<sup>154</sup> Transcript of the Proceedings of the Conservation Strategy Review Workshop, Other Mammals and Endemics Panel, April 12, 2006 (Drs. Joseph Cook and David Person speaking)(Ex. IV>D. to SCS et al’s appeal of the 2008 TLMP Amendment).

viability assessments, conducted at a finer scale within identified endemism zones of the Tongass, is warranted. [Haufler, J. 2007].

The FEIS needed to do these assessments for POW endemic mammals. Despite the overwhelming scientific concern about POW endemics, and the lack of data, the FEIS asserts that “there is adequate information” and no surveys were necessary. FEIS, Appx. B at B-162.

The following comments pertain specifically to the northern flying squirrel. But the concerns that range from poor quality analysis to poor quality OGRs pertain to all small mammal habitat specialists. The FEIS generally measures impacts in terms of broad scale removals of POG without consideration of specific habitat needs, specific connectivity and fragmentation sensitivities or species-specific risks of localized extirpations.

Analysis in the Big Thorne FEIS fails to adequately consider impacts to the Prince of Wales Flying Squirrel (*Glaucomys sabrinus griseifrons*) and instead relies on the outdated conservation strategies of the TLMP. By doing so, the analysis neglects to incorporate the best scientific information available, most glaringly information from scientists with many years experience working with Tongass and POW endemic species (see Mr. Person’s input on Big Thorne). The FEIS relies on Forest Plan standards and guidelines to support suitable habitat for POW flying squirrel under all alternatives, and does not acknowledge recent studies demonstrating that these TLMP standards are not adequate for POW flying squirrel. Based on this, the FEIS reaches the conclusion stating only that local population reductions for POW flying squirrel would occur under all action alternatives.

The most recent and scientifically rigorous research concludes that the outdated strategies in the 1997 and 2008 TLMP for maintaining an integrated system of reserves are not adequate to protect old-growth dependent species like the POW flying squirrel from severe population-level effects, both in the short and long-term, that would result under any of the action alternatives. Because of glaring errors in analysis, including failure to incorporate the best available science, or to incorporate input from scientific experts on project impacts, the information underlying the decision to implement the Big Thorne Project is inadequate to meet NEPA.

POW flying squirrels are limited by their dependence on old growth forest and generally do not traverse forest openings larger than 250 feet due to limitations in gliding locomotion and sensory capabilities. Because of this, functional connectivity between OGRs is critical to sustaining dispersal capabilities of the POW flying squirrel, and clearcuts or open areas act as dispersal barriers for the squirrels. Small subpopulations of squirrels are also likely to be isolated by reduced connectivity [Smith et al. 2011]. Two recent studies by Smith, Person and Pyare tested some of the assumptions of the conservation strategy in the TLMP and found that reliance on habitat reserves, such as those maintained under the 1997 and 2008 TLMPs, is a recipe for failure and that the matrix of managed lands between reserves is critical to successful conservation. [Id.].

Alternative 3, as approved in the ROD, does not meet even the TLMP requirements for modification of Old Growth Reserves in the matrix. In particular, the modification of OGR in VCU 5800, 5810 and 5850 will fail to realize “comparable achievement” of landscape connectivity objectives described in the TLMP. The decision-maker asserts in the ROD that Alternative 3 will attain comparable achievement, but that conclusion is arbitrary and capricious because it: (1) runs counter to facts presented in the FEIS and ROD describing the impact of new clearcutting within VCU 5800, 5810 and 5850; and (2) fails to consider comment of the US Department of Interior stating that those OGR modifications will not attain comparable achievement under Alternative 3.

Alternative 3 will reduce the quality and quantity of POG habitat, reducing population viability of the endemic POW flying squirrel to levels at which the subspecies may cease to exist over the next 50 to 100 years. Habitat loss and fragmentation is a major threat to the viability of POW flying squirrel in the Big Thorne area. The amended 1997 TLMP included an integrated system of OGRs that were expected to sustain viable populations of wildlife species. But recent work on the viability of the POW flying squirrel found that flying squirrel were unlikely to persist in a landscape consisting only of small, poorly connected OGRs, such as that which would occur throughout the Big Thorne Project area under Alternative 3, which will allow new clearcutting some of the last remaining POG in VCUs where connectivity already is extremely limited. The Forest Service does not even know the degree of intensity to which the Big Thorne Project will affect POW flying squirrel because it has not surveyed for them in the action area. Instead, the agency arbitrarily defers to a forest-wide protocol exempting itself from surveying for endemic species on islands larger than 1,000 acres.

The FEIS acknowledges that species with limited dispersal capabilities, like the flying squirrel are sensitive to habitat loss and fragmentation and that recent research indicates that the POW flying squirrel is unlikely to venture across typical clearings (those that exceed 250 feet) and that the species requires function connectivity of forested landscape, and are dependent on features of old growth forests. However, the analysis fails to adequately quantify impacts, especially cumulative long-term impacts, particularly in light of the ROD's failure to ensure comparable achievement of TLMP connectivity objectives for small OGR, in violation of NFMA.

In sum, it was unreasonable for the BTP FEIS and ROD to rely on TLMP Standards and Guidelines and the TLMP Conservation Strategy to ensure endemic viability on POW. The analyses violated NEPA by failing to take a hard look at the scientific evidence. It was not enough to merely include the documents in a reference list or planning record. In addition to failing to ensure viable populations across the planning area, the BTP FEIS also violated NFMA by failing to "preserve and enhance the diversity of plant and animal communities, including endemic ... animal species" at natural levels. 36 C.F.R. § 291.27(g) and the TNF's own endemic guideline which requires the agency to "maintain habitat to support viable populations and improve knowledge of habitat relationships of rare or endemic terrestrial mammals that may represent unique populations with restricted ranges." 2008 TLMP at

## ***B. Marten***

The selected alternative substantially reduces marten habitat, and will result in "localized declines" in marten populations. FEIS at 3-197. The habitat loss and road density statistics provided in the FEIS, 3-196-197, such as they are, make clear that the BTP does not leave enough habitat "to support, at least, a minimum number of reproductive individuals" and well distributed habitat to enable individual martens to interact with one another. 16 U.S.C. § 1605(g)(3)(B); 36 C.F.R. § 219.19. The FEIS arbitrarily relies on future thinning projects and other habitat areas and "functional connectivity" between poorly connected OGRs, through non-federal lands and through legacy structure to ensure viable populations.

### ***1. The FEIS Failed to Adequately Explain its Methodology for Marten Habitat***

The FEIS failed to provide a detailed explanation regarding the application of the marten deep snow model for this project. The FEIS uses a "deep snow" habitat model to assess impacts to marten and discloses timber extraction has removed between 35% and 69% of deep snow habitat in project area WAAs and 48% of this habitat within the project area as a whole. FEIS at 3-118. Our DEIS comments requested that the TNF use and display results from the interagency habitat capability model used in the 2008 TLMP (Suring et al. 1992),

which calculates a Habitat Suitability Index (HSI) based on timber volume strata, elevation and typical snowfall.

The comparison between models was important because ADF & G personnel have pointed out that the high value marten habitat model underestimates habitat losses. [Ith, G. 2008; McCoy, K. 2008]. The deep snow model was used for the first time for the Logjam project and produced results that show smaller levels of habitat loss than the high value marten habitat model, suggesting that the deep snow model may also underestimate habitat loss.<sup>155</sup> Further, one of the major flaws with the TNF's marten habitat impacts assessments is that they fail to directly include the road density factor appended to the Suring model in the marten habitat analysis.

However, the FEIS failed to provide sufficient scientific evidence to support the chosen methodology or explain the change to the deep-snow habitat model. Neither the 2008 TLMP nor the Logjam NEPA documentation had previously provided any explanation for the change or the underlying methodology. The ongoing failure to explain the marten model change violated NEPA. See, e.g. *Idaho Sporting Cong. v. Rittenhouse*, 305 F.3d 957, 972-73 (9<sup>th</sup> Cir. 2002); *Native Ecosystems v. U.S. Forest Serv.*, 418 F.3d 953, 964(9<sup>th</sup> Cir. 2005)(citing *Lands Council v. Powell*, 395 F.3d 1019, 1032 (9<sup>th</sup> Cir. 2005); *Pacific Coast Federation Fishermen's Associations v. National Marine Fisheries Service*, 482 F.Supp.2d 1248, 1252 (W.D. 2007))(stating that "where an agency has previously made a policy choice to conform to a particular standard, 'the Agencies have an obligation under NEPA to disclose and explain on what basis they deemed the standard necessary before but assume it is not now'")(citing *Northwest Ecosystem Alliance v. Rey*, 380 F.Supp.2d 1175, 1192 (W.D. Wash. 2005).

## **2. The FEIS Failed to Take a Hard Look at Road Density and Risks of Actual Extirpation**

One of the major flaws of the TNF's deep snow model is that it fails to consider the relationship between road density and high value marten habitat. The FEIS disclosed road densities at an inappropriate scale and worse, failed to provide a thorough assessment of the impacts of increased road density on marten. It then relied on future mitigation measures to offset the undisclosed impacts. Our DEIS comments requested that the TNF review and discuss the more recent work by small mammal biologists indicating that road density increases pose significant risks to marten, including the concern that high road densities may lead to local extirpations. But the FEIS simply disclosed road densities for all elevations and failed to assess the implications of those road densities for marten. FEIS at 3-120, 3-192-193. It further excused the absence of a road density threshold under the TLMP because "it is not road density per se that is important to marten but rather the availability of roadless refugia." FEIS at 3-193. The choice of scale and the impacts disclosure were both unreasonable. In fact, it is well known to the TNF that the relevant scientific studies show that high road densities – at much lower levels than in the BTP – can lead to local extirpations. We incorporate here by reference our discussion of road density in the 2008 TLMP appeal by Greenpeace et al, planning record presentation on road density and marten at the 2006 Conservation Strategy Review Workshop and previously cited scientific studies related to road density and marten.

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<sup>155</sup> See Dillman, M. 2009. Logjam Timber Sale Wildlife Report at 29; Logjam DEIS at 3-79, 3-108 (showing that under the high value model that the Logjam project would remove half the historical high value marten habitat) and Logjam FEIS at 3-43 & Dillman, M. 2009 (showing that the deep snow model yields a considerably smaller loss – one third of deep snow habitat).



### **3. The DEIS Failed to Adequately Consider Forest Retention Levels for Marten**

Our scoping and DEIS comments requested an assessment of the value of additional forest structure retention in clearcut units for marten and comparisons of the 1997 and 2008 TLMP programmatic guidance for forest structure retention in the project area. Also, we requested that the NEPA analysis account for the need for trapping refugia and prey availability into account.

The TNF had previously concluded through the 1997 TLMP that habitat retention for marten was necessary in project area VCUs. 1997 TLMP at 4-119. Scientists have indicated that the OGR system is not sufficient to ensure the viability of marten and other small mammals and that “additional conservation measures may be necessary, such as managing matrix lands and productive habitat and maintaining corridors between OGRs.” [TLMP Planning Record; PR # 818, 970]. Because these recommendations applied specifically to POW, the FEIS needed to explain why the guidelines were necessary in 2007 for this project but are not now in 2009. [*Northwest Ecosystem Alliance*, 380 F.Supp.2d at 1192]. We discussed the lack of supporting science for the legacy guidelines in considerable detail in previous sections and in the Greenpeace et al TLMP Amendment appeal, and emphasize that those concerns need to be addressed before proceeding with this project.

#### **C. MIS: Black Bear**

Black bears are an umbrella species with large area requirements and varied habitat uses. The health of black bear populations can be an indicator of overall ecosystem integrity. Black bears also have significant value for hunters and tourists. The 2008 TLMP FEIS explains that “[b]lack bears were chosen as an MIS because of their importance for hunting and for recreation and tourism.” 2008 TLMP FEIS at 3-233. Our scoping and DEIS comments requested that the NEPA analysis address several issues with regard to the viability of the black bear MIS and include site-specific analyses of impacts to black bears by alternative. 16 U.S.C. § 1604(g)(3); 36 C.F.R. § 219.19; 36 C.F.R. § 219.19(a)(1); *Inland Empire Pub. Lands Council v. U.S. Forest Serv.*, 88 F.3d 754, 762 n. 11 (9<sup>th</sup> Cir. 1996); *Idaho Sporting Congress v. Rittenhouse*, 305 F.3d 957, 962, 971-74 (9<sup>th</sup> Cir. 2002). There is serious concern about the viability of POW black bears for several reasons; in particular, timber harvest is the “most serious threat to black bear habitat” and the “current population decline may in part be the first evidence of reduced carrying capacity due to logging.” PR 205 (ADF & G, 2010) at 79. As discussed in the following subsections, the FEIS failed to address habitat impacts and road density impacts.

The FEIS did not discuss impacts to black bear habitat other than to measure impacts by cataloguing total productive old growth removals at a broad scale. This means the analysis failed to measure impacts at meaningful scales so the public can consider the site-level impact of the activity on the ecosystem. *Pacific Coast Fed’n of Fishermen’s Ass’ns*, 265 F.3d at 1035-37 (an agency “cannot minimize the environmental impact of an action by adopting a scale analysis so broad that it marginalizes the site-level impact of the activity on ecosystem health”). The FEIS simply measured impacts to black bears by cataloguing total productive old growth removals. FEIS at 3-121.

First, the FEIS failed to look specifically at high-value bear habitat- low-elevation, old-growth forest with abundant and productive salmon streams. Instead, it simply assumed without referencing any supporting science, that 100 foot riparian buffers on class I streams would reduce effects on black bear habitats. FEIS at 3-200. Black bears rely on productive riparian habitat more than other MIS. Dillman, M. 2009 at 69. The extensive rate of past and planned harvest in project area fish-bearing watershed is likely to significantly reduce

riparian bear habitat and lead to population declines. But the FEIS failed to analyze or discuss how much summer black bear foraging habitat would be lost, or even consider cumulative lost riparian foraging habitat in the cumulative effects analysis.

Second, the FEIS did not provide a discussion about black bear utilization of and the project's impact to large tree old growth forest. Forest Service wildlife managers have recently begun to associate black bear habitat with large tree old-growth. Dillman, M. 2009.<sup>156</sup> A recent study showed that high volume old growth was "the most used habitat type by all bears in all seasons." *Id.* Finally, habitat modification associated with timber extraction is likely to entail a long-term decline in bear numbers. *Id.* The need to specifically measure baseline habitat capability for bears and disclose carrying capacity in the same manner as done for deer was necessary in order to take a hard look at project impacts in light of the ongoing and predictable impact of intensive black bear harvest on POW populations. But the FEIS swept impacts to black bears aside as it did with marten by relying on an unreasonable approach to habitat needs.

### **VIII. Information not made reasonably available**

The touchstone of any NEPA analysis is whether an EIS, in form, content and preparation, fosters both informed decision-making and informed public participation. See *e.g. League of Wilderness Defenders-Blue Mts. Biodiversity Project v. United States Forest Serv.*, 689 F.3d 1060, 1075 (9th Cir. Or. 2012). Here, at a basic level, neither purpose is reasonably met.

First, the organizational form and content of the EIS is more geared to preventing successful citizen challenge of the Decision, than to inform that decision or public review of it. This analysis is like a puzzle still in the box—it requires piecing together before one can tell what the picture is of. Profound and difficult issues of socio-economics, wildlife and fisheries habitat, and silviculture, covering a very large physical area and atypically long period of time, are addressed in small pieces. No effort appears to have been made to put the pieces together. In terms of watersheds and fisheries, for instance, before the reader can gain any insight they need to piece together bits of information from the transportation, fisheries, watersheds, soils and wetlands, and subsistence sections, as well as information from each of the hundreds of unit and road cards. Further, they need to then put those pieces back together for each of the dozen or so impacted watersheds. Worse, essential supporting information and analysis is contained not in the body of the EIS itself, but in resource reports and their tiered Forest Plan decision; which in turn heavily tier to a mass of documents in the project record.

Second, the project is being fast-tracked at the expense of allowing reasoned analysis. The decision-maker had made the decision before the EIS was even prepared, which partly explains how such a hodge-podge of information could be deemed acceptable. That argument is bolstered on our review, because the analysis is so overly and unnecessarily segmented that it is humanly impossible for the public to realistically review the analysis in the allotted 45 days. Mr. Cole not possibly have reviewed the information in the EIS in the time allotted to him prior to making his decision.

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<sup>156</sup> Dillman's analysis for the Logjam FEIS provided more information about black bears than the BTP Wildlife Resource Report.



It is a good thing the Forest Supervisor was so sure of what he'd hear in an EIS and what decision should be made, because answering any questions addressed deeper in the project record would have been impossible. The Administrative Record, contrary to Forest Service policy (FSH 1909.15-2009), was not prepared until after the Decision had already been signed, and after the public notice had already been given. Our first copies of the project record (which we'd requested well in advance) were received in mid-July. Documents were still being added to it as late as August 13<sup>th</sup>! Hard copies of the EIS<sup>157</sup> weren't even sent out until later in the month (my copy was post-dated July 26<sup>th</sup>) and received even later.<sup>158</sup>

Third, these problems are compounded by use of a private-sector contractor to prepare the NEPA analysis. This is distinguished from situations where an expert agency is drawing on a wealth of accumulated knowledge and experience. The people writing these words are considering these issues for the first time, without benefit of on-ground experience. The decision-maker within USFS, in turn, is reviewing their analysis for the first time when the document is produced.

## IX. Signatures

Sincerely,

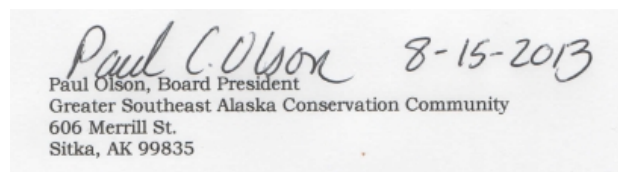
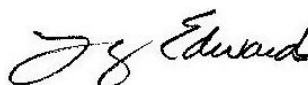
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<sup>157</sup> We are not just being old-fashioned in thinking hard-copies are necessary for a quality review. I challenge the ARO to conduct his analysis relying on the electronic or 8.5" X 11" maps.

<sup>158</sup> Availability in Thorne Bay alone (if indeed the documents actually were present and available there on July 1) is not reasonable in this case because of its remote location.